

Title (en)

SYSTEM FOR MONITORING THE STATE OF A LINE IN AN ENERGY CHAIN

Title (de)

SYSTEM ZUR ZUSTANDSÜBERWACHUNG EINER LEITUNG IN EINER ENERGIEFÜHRUNGSKETTE

Title (fr)

SYSTÈME DE SURVEILLANCE DE L'ÉTAT D'UNE LIGNE DANS UNE CHAÎNE ÉNERGÉTIQUE

Publication

EP 4324103 A1 20240221 (DE)

Application

EP 22721698 A 20220407

Priority

- DE 202021101964 U 20210412
- DE 202021106364 U 20211123
- EP 2022059342 W 20220407

Abstract (en)

[origin: WO2022218828A1] The invention relates to a monitoring system comprising a line-guiding device (1; 41) having a movable section and at least one line (13) led by the line-guiding device (1; 41) and having a line section (130) that is to be monitored, and a monitoring apparatus (10) having a first (200A) and a second module (200B) each provided on both sides of the line section that is to be monitored. According to the invention, the modules (200A, 200B) are embodied so as to interact in order to determine an electrical transmission property of the line section (13A; 13B) in relation to a predetermined radio-frequency (RF) signal during running operation. The first module (200A) comprises an RF generator coupled to the line (13) that is to be monitored in order to couple a predetermined RF signal as test signal to the line section (130). The second module (200B) has an RF receiver coupled to the line that is to be monitored in order to couple the RF signal out of the line section (130) and is configured to evaluate properties of the received RF signal in order to determine at least one value relating to the transmission quality over the line section (130).

IPC 8 full level

H04B 3/46 (2015.01); **F16G 13/16** (2006.01); **G01R 31/08** (2020.01); **G01R 31/58** (2020.01); **H02G 11/00** (2006.01); **H04B 3/48** (2015.01); **H04B 3/60** (2006.01)

CPC (source: EP KR US)

F16G 13/16 (2013.01 - KR); **G01R 31/085** (2013.01 - US); **G01R 31/58** (2020.01 - EP KR); **H04B 3/46** (2013.01 - EP); **H04B 3/48** (2013.01 - EP KR); **H04B 3/60** (2013.01 - EP KR); **F16G 13/16** (2013.01 - EP); **H02G 1/00** (2013.01 - EP); **H04B 2203/5458** (2013.01 - KR); **H04B 2203/5495** (2013.01 - KR)

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)

WO 2022218828 A1 20221020; CA 3216370 A1 20221020; EP 4324103 A1 20240221; JP 2024513382 A 20240325; KR 20230169287 A 20231215; MX 2023011944 A 20231017; US 2024192260 A1 20240613

DOCDB simple family (application)

EP 2022059342 W 20220407; CA 3216370 A 20220407; EP 22721698 A 20220407; JP 2023560259 A 20220407; KR 20237038824 A 20220407; MX 2023011944 A 20220407; US 202218286113 A 20220407