

Title (en)

METHOD OF ESTABLISHING THE RESIDUAL USEFUL LIFE OF CONTACTS IN SWITCHGEAR AND ASSOCIATED ARRANGEMENT

Title (de)

VERFAHREN ZUR BESTIMMUNG DER RESTLEBENSDAUER VON KONTAKTEN IN SCHALTGERÄTEN UND ZUGEHÖRIGE ANORDNUNG

Title (fr)

PROCEDE DE DETERMINATION DE LA DUREE DE VIE RESIDUELLE DE CONTACTS DANS DES APPAREILS DE COMMUTATION ET SYSTEME ASSOCIE

Publication

EP 0878016 A1 19981118 (DE)

Application

EP 97914100 A 19970129

Priority

- DE 9700173 W 19970129
- DE 19603310 A 19960131

Abstract (en)

[origin: DE19603310A1] In order to establish the residual useful life of earth contacts, it has already been proposed to determine the so-called contact action at the breaker gap as a criterion for replacement in the event of contact erosion and to measure the change in contact action during the switching off stage in order to determine the erosion of the contact tips and convert it into the residual useful life. To that end, with a magnetic drive comprising an armature with magnet coils and an associated yoke, the time taken for the armature to move from the beginning of its movement to the point when the contact starts to open is measured. According to the invention, the measured value of the time signal (tk) of the contact opening is determined on the load side of the monitored switchgear, and the measured value of the time signal (tA) is determined by a de-energized signal emitted at the beginning of the armature movement. Intended in particular for use in three-phase systems, the switching voltage is measured as a change in voltage at an artificial neutral point. The associated arrangement comprises a de-energized signal line (20) disposed between the switchgear (1) and an evaluation device (100, 200, 300).

IPC 1-7

H01H 1/00; **H01H 9/16**

IPC 8 full level

H01H 1/00 (2006.01); **H01H 9/16** (2006.01)

CPC (source: EP US)

H01H 1/0015 (2013.01 - EP US); **H01H 9/167** (2013.01 - EP US); **H01H 2071/044** (2013.01 - EP US)

Citation (search report)

See references of WO 9728548A1

Cited by

DE10260248A1; DE10260248B4; DE10260249A1; DE10260249B4; DE10260258A1; DE10260258B4

Designated contracting state (EPC)

DE FR

DOCDB simple family (publication)

DE 19603310 A1 19970807; CN 1068956 C 20010725; CN 1208498 A 19990217; DE 59700469 D1 19991028; EP 0878016 A1 19981118; EP 0878016 B1 19990922; US 2001019268 A1 20010906; US 6359440 B2 20020319; WO 9728548 A1 19970807

DOCDB simple family (application)

DE 19603310 A 19960131; CN 97191728 A 19970129; DE 59700469 T 19970129; DE 9700173 W 19970129; EP 97914100 A 19970129; US 11758598 A 19980730