

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 0878015 B1 19991020 (DE)**

Application  
**EP 97907032 A 19970129**

Priority  
• DE 9700174 W 19970129  
• DE 19603319 A 19960131

Abstract (en)  
[origin: DE19603319A1] 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 a yoke, armature and magnet coil, the time taken for the armature to move from the beginning of its movement to the point when the contact starts to open has to be measured. According to the invention, the moment when the armature separates from the yoke of the protective magnetic drive is detected from the voltage at the magnet coil. In this respect, the increase in the magnetic resistance of the magnetic circuit when the armature lifts off is determined. The associated arrangement comprises an evaluation device for determining and displaying the residual useful life, said evaluation device (100) having means (110 - 150) for determining and detecting the voltage at the magnet coil (5).

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**H01H 1/00**; **H01H 47/00**

IPC 8 full level  
**H01H 1/00** (2006.01); **H01H 47/00** (2006.01)

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**H01H 1/0015** (2013.01 - EP US); **H01H 47/002** (2013.01 - EP US); **H01H 2071/044** (2013.01 - EP US)

Cited by  
DE102017003755B4; DE10260248A1; DE10260248B4; DE102005045095A1; FR2952222A1; EP2320443A3; DE10260249A1; DE10260249B4; DE10260258A1; DE10260258B4; DE202017002030U1; EP2320443A2; EP2254136A1; US8264232B2

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