

Title (en)
CIRCUIT BREAKER FOR ISOLATING AN ELECTRICAL CIRCUIT

Title (de)
SCHUTZSCHALTER ZUR TRENNUNG EINES STROMKREISES

Title (fr)
DISJONCTEUR DE PROTECTION POUR LA COUPURE D'UN CIRCUIT ÉLECTRIQUE

Publication
EP 3766090 B1 20230503 (DE)

Application
EP 19709715 A 20190308

Priority
• DE 102018204104 A 20180316
• EP 2019055812 W 20190308

Abstract (en)
[origin: WO2019175042A1] The invention relates to a circuit breaker (2) comprising a switching unit (4) for interrupting an electrical circuit, having a stationary fixed contact (22) and a moving contact (24), which can be moved relative to the fixed contact (22) and can be switched from a closed position to an open position, and also having a quenching device (28) for quenching an arc which is produced when the contacts (22, 24) are opened, comprising a prechamber (34) for guiding the arc from the contacts (22, 24) to a quenching chamber (30), wherein the prechamber (34) has two insulating side walls (52) and a pair of arc guide rails (36, 38) which are situated therebetween, wherein a ferromagnetic shaped part (54) is arranged on each of the side walls (52), and wherein a permanent magnet (58) is arranged in the region of the fixed contact (22), the magnetic field of said permanent magnet guiding the arc along one of the arc guide rails (36).

IPC 8 full level
H01H 9/44 (2006.01); **H01H 9/46** (2006.01)

CPC (source: EP KR US)
H01H 9/36 (2013.01 - KR); **H01H 9/443** (2013.01 - EP KR); **H01H 9/446** (2013.01 - EP KR); **H01H 9/46** (2013.01 - EP KR);
H01H 33/182 (2013.01 - US); **H01H 33/53** (2013.01 - US); **H01H 71/2463** (2013.01 - KR); **H01H 71/526** (2013.01 - KR); **H01H 9/36** (2013.01 - EP);
H01H 71/2463 (2013.01 - EP); **H01H 71/526** (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

DOCDB simple family (publication)
WO 2019175042 A1 20190919; CA 3094003 A1 20190919; CN 112219253 A 20210112; DE 102018204104 A1 20190919;
EP 3766090 A1 20210120; EP 3766090 B1 20230503; ES 2947094 T3 20230801; HU E062383 T2 20231028; JP 2021518632 A 20210802;
KR 20200128574 A 20201113; PL 3766090 T3 20230911; US 2020411259 A1 20201231

DOCDB simple family (application)
EP 2019055812 W 20190308; CA 3094003 A 20190308; CN 201980019401 A 20190308; DE 102018204104 A 20180316;
EP 19709715 A 20190308; ES 19709715 T 20190308; HU E19709715 A 20190308; JP 2020549810 A 20190308; KR 20207029366 A 20190308;
PL 19709715 T 20190308; US 202017022329 A 20200916