Title (en)

SWITCHING DEVICE WITH PERMANENT MAGNETIC ARC EXTINCTION

Title (de)

SCHALTGERÄT MIT PERMANENTMAGNETISCHER LICHTBOGENLÖSCHUNG

Title (fr)

APPAREIL DE COMMUTATION AVEC SOUFFLAGE D'ARC PAR AIMANT PERMANENT

Publication

EP 3048626 B1 20170614 (DE)

Application

EP 16000145 A 20160121

Priority

DE 102015000796 A 20150122

Abstract (en)

[origin: US2016217951A1] The present invention relates to a switching device with at least one contact point and an arc blow device associated with the contact point, where the arc blow device comprises at least one blow magnet for generating a magnetic blow field, and where the blow field is of such nature that a switch arc developing when the contact point opens is blown out from the contact point. It is according to the invention provided that the blow field comprises a first magnetic field area and a second magnetic field area arranged adjacent to the first magnetic field area, where the magnetic field lines of the first magnetic field area are oriented in opposite direction to the magnetic field lines of the second magnetic field area, and where the blow field further comprises a transition area which connects the first magnetic field area and the second magnetic field area with each other, where the orientation of the magnetic field lines in the transition area, each starting out from the first magnetic field area and the second magnetic field area, aligns toward the contact point so that the switch arc within the transition area is in dependence of the direction of the current, starting out from the contact point, directed either into the first magnetic field area or into the second magnetic field area and there in both cases blown in the same direction away from the contact point.

IPC 8 full level

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WO2018172030A1; EP3998621A4; EP3511969A1; RU2742946C1; EP3480837A1; CN109755056A; RU2708384C1; RU2726162C1; WO2019141611A1; WO2020208159A1; DE102017106300A1; DE102017125685A1; US10692671B2; US11532443B2; DE102017106300B4; WO2020035489A1

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