

Title (en)

High voltage switch with arc resistant short circuit current conductor

Title (de)

Hochleistungsschalter mit abbrandfester Kurzschlussstromführung

Title (fr)

Disjoncteur à haute puissance avec conducteur pour les courants court-circuits résistant à des arcs électriques

Publication

EP 1675144 A1 20060628 (DE)

Application

EP 04405796 A 20041223

Priority

EP 04405796 A 20041223

Abstract (en)

The switch has an axis (A) by which an axial coordinate (z) which runs parallel to the axis and a radial coordinate (r) which extends perpendicular to it are defined. An arcing contact piece (1), a current conducting element (2), and an arc-resistant element (3a) are provided. The arcing contact piece (1) has a hole (6) for directing an axial flow (4) of a gas (4) that is heated by an arc (5) which is based on the arcing contact piece (1) if applicable. The arcing contact piece (1) forms a planar contact (F) along with the current conducting element (2) in order to conduct a fault current (I) that flows through the arcing contact piece (1) and the current conducting element (2) during the time the arc (5) burns. The current conducting element (2) is shielded from the flow (4) near the planar contact (F) with the aid of the arc-resistant element (3a). The current conducting element (2) has an axial area (2a) in which a radial inner dimension (d2) of the current conducting element increases step by step or continuously as the distance from the planar contact (F) increases parallel to the axis (A). The axial area (2a) accommodates the arc-resistant element (3a).

IPC 8 full level

H01H 33/70 (2006.01)

CPC (source: EP US)

H01H 33/7015 (2013.01 - EP US); **H01H 33/7023** (2013.01 - EP US); **H01H 33/7061** (2013.01 - EP US); **H01H 33/7076** (2013.01 - EP US)

Citation (search report)

- [X] EP 0642145 A1 19950308 - GEC ALSTHOM T & D SA [FR]
- [X] EP 0290950 A1 19881117 - BBC BROWN BOVERI & CIE [CH]
- [X] EP 0932172 A2 19990728 - SIEMENS AG [DE]
- [A] US 5216214 A 19930601 - WILLIEME JEAN-MARC [FR], et al
- [A] US 4716266 A 19871229 - MUSCAGLIONE GIUSEPPE [IT], et al
- [A] US 4412115 A 19831025 - OKUNO MICHIHARU [JP]
- [A] US 3909572 A 19750930 - TSUBAKI TOHRU, et al

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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