

Title (en)  
HEAVY-DUTY CIRCUIT BREAKER FEATURING ARC-RESISTANT FAULT CURRENT CONDUCTION

Title (de)  
HOCHLEISTUNGSSCHALTER MIT ABBRANDFESTER KURZSCHLUSSTROMFÜHRUNG

Title (fr)  
DISJONCTEUR PRESENTANT UNE LIGNE DE COURANT DE COURT-CIRCUIT RESISTANT AU FEU

Publication  
**EP 1831906 A1 20070912 (DE)**

Application  
**EP 05812736 A 20051214**

Priority  
• CH 2005000747 W 20051214  
• EP 04405796 A 20041223  
• EP 05812736 A 20051214

Abstract (en)  
[origin: EP1675144A1] 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)  
See references of WO 2006066426A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1675144 A1 20060628**; AT E458258 T1 20100315; CN 101288141 A 20081015; CN 101288141 B 20110727;  
DE 502005009053 D1 20100401; EP 1831906 A1 20070912; EP 1831906 B1 20100217; JP 2008525945 A 20080717;  
US 2008006608 A1 20080110; US 7595461 B2 20090929; WO 2006066426 A1 20060629

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DE 502005009053 T 20051214; EP 05812736 A 20051214; JP 2007547137 A 20051214; US 81231507 A 20070618