

Title (en)
EXTINGUISHING DEVICE FOR AN ALL-CURRENT POWER CIRCUIT BREAKER

Publication
EP 0217106 B1 19911016 (DE)

Application
EP 86111603 A 19860822

Priority
DE 3531040 A 19850830

Abstract (en)
[origin: EP0217106A2] The extinguishing device has ferro-magnetic extinguishing plates (2) in a housing chamber (1), located at a distance next to one another, which are provided in each case on their narrow side facing one contact point (3, 4) with a funnel-shaped V-slot (2a). Transversely in front of the extinguishing plates (2) there are arranged two dielectric material plates (5, 6) which make contact on the end face with tongues (2b, 2c) on both sides of the V-slot (2a) and flank the contact point (3, 4). The individual extinguishing plates (2) are provided with insulating, narrow arc tracks (8) in the centre region of their tongues (2b, 2c) from both outer longitudinal edges (2d) extending up to in each case the V-slot (2a), which arc tracks are designed as comb-like inserts (8) plugged in between the extinguishing plates (2). The lower dielectric material plate (5) covers a permanent magnet (9) and encroaches with a projection (5a) of its end face in front of a groove-shaped end contour (2a") of the extinguishing plates (2). Above the permanent magnet (9), there is designed the insulating material plate (5) extending from the flat region (5d) flanking the contact point (3, 4) to the extinguishing plates (2) with step-like thickened regions increasing in steps (5b, 5c). The steps (5b, 5c) result in the switching arc (7) running into the V-slot (2a) well at DC currents above about 30 A. Subsequently, the comb-like inserts (8) prevent the partial arcs (7d, 7e) formed running back onto the tongues (2b, 2c) of the extinguishing plates (2) and keep them on the inner contours thereof. <IMAGE>

IPC 1-7
H01H 9/36; H01H 9/44

IPC 8 full level
H01H 9/36 (2006.01); **H01H 9/44** (2006.01)

CPC (source: EP)
H01H 9/36 (2013.01); **H01H 9/443** (2013.01)

Cited by
DE102007054958A1; FR2873511A1; DE102007054960B3; DE3824025A1; EP0586724A1; DE3803849C1; EP0288040A3; CN114582665A; CN101436495A; EP2061051A1; FR2923649A1; DE29620519U1; EP1995747A3; EP3389070A1; CN116895489A; US8519292B2; US7466528B2; US6288354B1; EP2061052A2; WO9933080A1; WO2018189373A1; WO2006018513A3; WO2006018515A3; US7915985B2; EP2383761A1; US11195673B2; EP2061053A2

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