

Title (en)

Arc quencher for multi-pole low-tension circuit breaker with moulded casing.

Title (de)

Lichtbogenlöschkammer für mehrpoligen Niederspannungs-Leistungsschalter mit gegossenem Gehäuse.

Title (fr)

Chambre d'extinction d'arc pour disjoncteur basse tension multipolaire à boîtier moulé.

Publication

EP 0022708 A1 19810121 (FR)

Application

EP 80401023 A 19800704

Priority

FR 7918315 A 19790712

Abstract (en)

1. Arc quencher chamber for multi-pole low-tension circuit breaker with moulded insulating casing (12) comprising per pole : - a pair of separable stationary (20) and movable (22) contacts, - a driving mechanism for moving between the open and closed positions the movable contact (22), - metal plates (24) for cooling the arc drawn between said contacts when they separate upon tripping of said circuit breaker, - an extinction gas venting opening (38) provided in the casing (12) near the output of the chamber (16), - a deionizing device (40) located near said venting opening for cooling the extinction gas blown outside, characterized by the fact that the deionizing device comprises a monobloc venting screen (41) with a porous structure formed by balls or corns agglomerated by a sintering or heating process and having a size included between 0,5 mm and 1,5 mm corresponding to a predetermined granulometry of said porous structure having extinction gas venting intervals, the ball material comprising a metal or an alloy.

Abstract (fr)

L'invention est relative à une chambre d'extinction d'arc à refroidissement amélioré des gaz de coupure. Elle comporte un dispositif de désionisation (40) à écran poreux (41) logé dans un orifice (38) d'échappement du boîtier (12) isolant. L'écran poreux (41) est formé à partir de billes (42) agglomérées ayant un diamètre de 0,8 mm. Des interstices sont ménagés entre les billes (42) pour le passage des gaz de coupure vers le milieu extérieur. Le matériau des billes est à base de cuivre. Application: disjoncteur basse tension à boîtier moulé.

IPC 1-7

H01H 73/18

IPC 8 full level

H01H 9/34 (2006.01)

CPC (source: EP)

H01H 9/342 (2013.01)

Citation (search report)

- FR 1364701 A 19640626 - MERLIN GERIN
- FR 2154628 A1 19730511 - MAIER & CIE C
- FR 1544434 A 19681031 - GEN ELECTRIC
- CH 247847 A 19470331 - SKODA KP [CZ]
- GB 551966 A 19430317 - GEN ELECTRIC
- FR 2269190 A1 19751121 - AIRPAX ELECTRONICS [US]

Cited by

DE19803925A1; US5889249A; CN1072832C; DE3446041A1; EP0644567A1; FR2710452A1; EP0437151A1; FR2655770A1; EP1298687A3; CN107230571A; EP3389068A1; FR3065316A1; US6570116B2; US10347438B2; US10134537B2; US7176771B2

Designated contracting state (EPC)

BE CH DE GB IT NL SE

DOCDB simple family (publication)

EP 0022708 A1 19810121; EP 0022708 B1 19831005; DE 3065153 D1 19831110; FR 2461349 A1 19810130; FR 2461349 B1 19820219

DOCDB simple family (application)

EP 80401023 A 19800704; DE 3065153 T 19800704; FR 7918315 A 19790712