

Title (en)
Switch with double rotating arc.

Title (de)
Schalter mit doppelt rotierendem Lichtbogen.

Title (fr)
Interrupteur à arc tournant double.

Publication
EP 0045229 A1 19820203 (FR)

Application
EP 81401079 A 19810706

Priority
FR 8015858 A 19800717

Abstract (en)
1. Switch with rotating arc having a tight enclosure (10) filled with a high dielectric strength gas, in which are located : - a pair of coaxial separable contacts (36, 18) of which a moving contact (18) sliding in the axial direction to come in separate position, - a blow-out ring-shaped coil (54) disposed to generate a cross magnetic field in the extension zone of the arc drawn when said contacts separate. - at least a ring-shaped electrode (56, 58) inserted in the zone of the arc extension to collect this last one, said electrode being electrically connected to said coil (54) to bring into circuit this last one when the arc is transferred on to the electrode and to submit the arc root to one rotation on the ring-shaped electrode, characterized in that it comprises principal contacts (18, 26') and arc contacts (20, 40), these latter separating during the sliding move of the moving contact (18) after the separation of the principal contacts (18, 26'), and a single coil (54) equipped with a passage aperture of the moving contact (18) and disposed in the separation zone of said arc contacts (20, 40) in separate position, said coil (54) being flanked on both side faces by two ring-shaped electrodes (56, 58) electrically connected to the input and to the output of the coil respectively and facing one (36) and the other of said arc contacts (20, 40) in separate position respectively.

Abstract (fr)
L'invention est relative à un interrupteur à arc tournant double. Une bobine de soufflage magnétique (54) comporte deux électrodes annulaires (56, 58), qui l'encadrent latéralement et auxquelles sont reliées respectivement l'entrée et la sortie de la bobine (54). La bobine (54) est interposée entre des contacts (36, 18) en position ouvert d'un interrupteur, de telle manière que l'arc tiré entre les contacts séparés (36, 18) est transféré sur les électrodes (56, 58) en se subdivisant en deux arcs divisionnaires, chacun soumis au soufflage magnétique de la bobine (54). Les arcs divisionnaires tournants sont de plus soumis à un soufflage pneumatique par expansion thermique des gaz de la chambre de coupure (46) s'échappant à travers les deux contacts tubulaires (16, 18) vers les chambres d'expansion (48, 50).

IPC 1-7
H01H 33/18

IPC 8 full level
H01H 33/64 (2006.01); **H01H 33/18** (2006.01); **H01H 33/98** (2006.01)

CPC (source: EP)
H01H 33/18 (2013.01); **H01H 33/982** (2013.01)

Citation (search report)
• FR 1014637 A 19520819 - HAZEMEIJER CO
• EP 0020045 A1 19801210 - SOUTH WALES SWITCHGEAR [GB]
• FR 2239750 A1 19750228 - BBC BROWN BOVERI & CIE [CH]
• FR 2368792 A1 19780519 - CEM COMP ELECTRO MEC [FR]
• EP 0004213 A1 19790919 - MERLIN GERIN [FR]
• EP 0012048 A1 19800611 - MERLIN GERIN [FR]

Designated contracting state (EPC)
BE CH DE GB IT NL SE

DOCDB simple family (publication)
EP 0045229 A1 19820203; **EP 0045229 B1 19841227**; DE 3167928 D1 19850207; FR 2487113 A1 19820122; FR 2487113 B1 19830729; JP S5732521 A 19820222

DOCDB simple family (application)
EP 81401079 A 19810706; DE 3167928 T 19810706; FR 8015858 A 19800717; JP 9699381 A 19810622