

Title (en)
Single-pole and neutral miniature circuit breaker.

Title (de)
Einpol- und Nulleiter-Kleinschalter.

Title (fr)
Disjoncteur miniature unipolaire et neutre.

Publication
EP 0042778 A1 19811230 (FR)

Application
EP 81400914 A 19810610

Priority
FR 8013681 A 19800619

Abstract (en)
1. Single-pole and neutral circuit-breaker with narrow and flat parallelepipedic moulded casing (10), comprising : - an operating mechanism disposed with symmetry in the median plane perpendicular to the narrow sides (18, 20, 24, 30) of the casing and taking up the whole width of the casing, said mechanism having an electro-magnetic device (70) of automatic tripping when a short-circuit occurs and a manual handle (22) driving the tipping of a rotating support (78) ; - a set of phase contacts (58, 62) and a set of neutral contacts (48, 50) placed side by side inside said casing, the movable contacts (50, 62) being linked together onto a contact arm (52, 64) mounted in rotation on a common pivot (54) of said rotating support (78), and - an intermediate insulating partition (36) parallel to said median plane and interposed between the phase contacts and neutral contacts, characterized in that the contact zones of the phase contacts (58, 62) and neutral contacts (48, 50) are shifted to realize a manual opening by the handle (22) of the phase contacts before the one of the neutral contacts, and a closing of the neutral contacts before the one of the phase contacts, and in that the electro-magnetic device (70) actuates a drawer (118) bearing on the two contact arms (52, 64) to displace quickly and simultaneously these contact arms in swith-off position when a tripping on short-circuit occurs.

Abstract (fr)
L'invention est relative à un disjoncteur unipolaire et neutre logé dans un boîtier (10) de profil et de largeur standard. Une cloison isolante intermédiaire sépare le circuit de neutre et le circuit de phase, cette cloison présentant une partie central décalée en direction de l'une des demicoquilles constituant le boîtier (10). Les déclencheur magnétique (70) agit par un extracteur sur les deux contacts mobiles (50,62) de neutre et de phase. La commande manuelle (22) commune au neutre et à la phase ouvre les contacts de phase avant les contacts de neutre et ferme ces derniers en premier.

IPC 1-7
H01H 71/00; **H01H 71/74**; **H01H 73/18**

IPC 8 full level
H01H 73/50 (2006.01); **H01H 71/00** (2006.01); **H01H 71/74** (2006.01); **H01H 73/04** (2006.01); **H01H 73/06** (2006.01); **H01H 73/48** (2006.01)

CPC (source: EP)
H01H 71/002 (2013.01); **H01H 71/7436** (2013.01); **H01H 73/04** (2013.01)

Citation (search report)
• FR 2167302 A1 19730824 - LANDIS & GYR AG [FR]
• FR 2350680 A1 19771202 - MERLIN GERIN [FR]
• FR 2226745 A2 19741115 - LEGRAND SA [FR]
• FR 2280185 A1 19760220 - LICENTIA GMBH [DE]
• GB 933273 A 19630808 - WALSALL CONDUITS LTD
• DE 1286188 B 19690102 - LICENTIA GMBH
• FR 1276936 A 19611124 - BUSCH JAEGER DUERENER METALL

Cited by
FR2574218A1; EP0403358A1; FR2648614A1; EP0599800A1; AU672641B2; EP0196241A1; FR2578093A1; EP0564379A1; FR2689308A1; EP0505292A1; FR2674369A1; DE4307811A1; EP1473750A1; CN100361254C; CN107427126A; EP0255992A3; EP0205369A1; FR2582857A1; US4695913A; CN103383907A; EP2365510A1; WO2004097878A1; WO2006074883A1

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

DOCDB simple family (publication)
EP 0042778 A1 19811230; **EP 0042778 B1 19840530**; DE 3163856 D1 19840705; ES 502931 A0 19820401; ES 8203528 A1 19820401; FR 2485254 A1 19811224; FR 2485254 B1 19820917; JP S5730234 A 19820218; JP S641892 B2 19890113; MA 19181 A1 19811231; PT 73209 A 19810701; PT 73209 B 19820706; YU 152781 A 19830630; YU 44065 B 19900228

DOCDB simple family (application)
EP 81400914 A 19810610; DE 3163856 T 19810610; ES 502931 A 19810610; FR 8013681 A 19800619; JP 9291181 A 19810616; MA 19391 A 19810617; PT 7320981 A 19810616; YU 152781 A 19810617