

Title (en)

OPERATING DEVICE FOR A CIRCUIT BREAKER, AND CIRCUIT BREAKER PROVIDED WITH THIS DEVICE

Publication

EP 0221430 B1 19900905 (FR)

Application

EP 86114528 A 19861021

Priority

FR 8515751 A 19851023

Abstract (en)

[origin: US4678877A] A mechanism for operating a circuit-breaker and suitable for causing a circuit-breaker to perform a rapid opening-closing-re-opening cycle, said circuit-breaker including a set of fixed contacts and a set moving contacts, said operating mechanism including an operating rod (13) for connection to said set of moving contacts, a first spring (24) imparting motion, when it expands, to said rod in a direction corresponding to circuit-breaker opening, a second spring capable of storing at least twice as much energy as said first spring and imparting motion, when it expands, to said rod in a direction which corresponds to said circuit-breaker closing, said mechanism further including means for ensuring that expansion of said second spring causes said first spring to be re-compressed, and each of said first and second springs being associated with a respective controllable locking member, said circuit-breaker operating mechanism being characterized in that it further includes a first cylinder (20) having said operating rod passing axially therethrough, a second cylinder (22) coaxial with said first cylinder, fixed relative thereto, and containing said first spring (24) therein, and a third cylinder (50) coaxial with said first and second cylinders and disposed between said first cylinder and said second cylinder and being movable relative thereto, said second spring (54) being disposed between said first and second cylinders, said third cylinder including a collar (50A) serving as an abutment for said second spring, and enabling said third cylinder to slide in said first cylinder and co-operating with a set of levers (71, 72) which are hinged on and fixed to said rod for driving said rod when said second spring expands.

IPC 1-7

H01H 3/30

IPC 8 full level

H01H 3/30 (2006.01)

CPC (source: EP US)

H01H 3/3026 (2013.01 - EP US); **H01H 3/3052** (2013.01 - EP US); **H01H 2003/3094** (2013.01 - EP US)

Cited by

FR2778492A1; FR2779565A1; FR2741473A1; EP0660347A1; FR2714522A1; US5512869A; EP0372449A1; FR2640424A1; EP0801406A1; FR2747502A1; US5756952A; CN1059049C; EP0475247A1; FR2666684A1; US5151567A; EP0665564A1; FR2715763A1; US5563390A; EP3594976A1; FR3083915A1

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0221430 A1 19870513; **EP 0221430 B1 19900905**; AT E56304 T1 19900915; CN 1011449 B 19910130; CN 86107271 A 19870422; DE 3673949 D1 19901011; ES 2017617 B3 19910301; FR 2589001 A1 19870424; GR 3000982 T3 19911210; US 4678877 A 19870707

DOCDB simple family (application)

EP 86114528 A 19861021; AT 86114528 T 19861021; CN 86107271 A 19861022; DE 3673949 T 19861021; ES 86114528 T 19861021; FR 8515751 A 19851023; GR 900400812 T 19901025; US 92222586 A 19861023