

Title (en)

CIRCUIT BREAKER COMPRISING A BISTABLE ACTUATOR AND SAFETY DEVICE EQUIPPED WITH SAID CIRCUIT BREAKER

Title (de)

MIT EINEM BISTABILEN MAGNETISCHEN BETÄTIGER VERSEHENE SCHALTVORRICHTUNG UND DAMIT AUSGERÜSTETE EINRICHTUNG

Title (fr)

COUPE-CIRCUIT COMPORTANT UN ACTIONNEUR BISTABLE ET DISPOSITIF DE SECURITE EQUIPE DUDIT COUPE-CIRCUIT

Publication

**EP 1761939 A1 20070314 (FR)**

Application

**EP 04816568 A 20041216**

Priority

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- FR 0406453 A 20040615

Abstract (en)

[origin: WO2006005817A1] The invention concerns a circuit breaker comprising two contact plates (44) connected respectively to a circuit, a bridge (48) capable of being in two different states, a first state corresponding to the closed circuit position wherein the bridge (48) is in contact with the contact plates (44) and a second position corresponding to the open circuit position wherein the bridge (48) is spaced apart and no longer in contact with the two contact plates (44), said bridge being connected to a bistable actuator via a rod (14, 114) made of non-magnetic material. The invention is characterized in that the actuator comprises: a plunger (12, 112) connected to the rod (14, 114) slidable in a tube (20, 120) made of non-magnetic material between two stable positions; a U-shaped yoke frame (22, 122) between the branches of which is arranged the tube (20, 120), the tube axis being substantially parallel to the branches of the yoke frame (22, 122); at least one permanent magnet (28, 128) capable of maintaining the plunger (12, 112) in at least one stable position, the permanent magnet (28, 128) having a first pole in contact with the yoke frame (22, 122) and a second pole in direct or indirect contact with the tube (20, 120) perpendicular to the plunger (12, 112); and means, for example, a solenoid (32, 132), capable of emitting a non-permanent magnetic field enabling the plunger (12, 112) to be switched from one stable position to the other, arranged between the tube (20, 120) and the yoke frame (122, 122).

IPC 8 full level

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CPC (source: EP)

**H01H 51/2209** (2013.01)

Citation (search report)

See references of WO 2006005817A1

Citation (examination)

- DE 3635431 C1 19880128 - SDS RELAIS AG
- GB 2128407 A 19840426 - SDS ELEKTRO GMBH, et al
- JP S63119206 U 19880802
- JP S6010708 A 19850119 - MATSUSHITA ELECTRIC WORKS LTD

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