Title (en)

ELECTROMAGNETIC RELAY, IN PARTICULAR FOR INTERRUPTION OF AN ELECTRIC CIRCUIT IN THE CASES OF DIFFERENTIAL CIRCUIT, AND A SWITCH COMPRISING SUCH RELAY

Title (de)

ELEKTROMAGNETISCHES RELAIS, INSBESONDERE ZUR UNTERBRECHUNG EINER ELEKTRISCHEN SCHALTUNG IM FALLE VON EINER DIFFERENTIALSCHALTUNG, UND SCHALTER MIT EINEM SOLCHEN RELAIS

Title (fr)

RELAIS ÉLECTROMAGNÉTIQUE, EN PARTICULIER POUR L'INTERRUPTION D'UN CIRCUIT ÉLECTRIQUE DANS LES CAS DE CIRCUIT DIFFÉRENTIEL, ET COMMUTATEUR COMPORTANT UN TEL RELAIS

Publication

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Application

EP 11813603 A 20111214

Priority

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Abstract (en)

[origin: WO2012105913A1] The purpose of the invention is to create an electromagnetic relay (3) of a switch (S) used for interruption of the electric circuit whenever differential current would occur between a phase conductor (P) and a neutral conductor (N) thereof, wherein each required magnetic properties, which are necessary for reliable operation, are assured despite to essentially simplified manufacturing technology, and wherein the sensibility and responsiveness of the relay (3) even with respect to extremely small differential currents is essentially improved. Correspondingly, the purpose of the invention is also to improve the switch (S), which comprises such relay (3) and is intended to interrupt the circuit as soon as differential current is detected. In accordance with the present invention, such relay (3) comprises a yoke (31), which is cut or punched of a strip or plate consisting of steel or any other metallic alloy having pre-determined magnetic properties, and comprises three arms (311, 312, 313) which are capable to rest simultaneously on the armature (33), wherein a pivot point (333) is arranged on the third arm (313) of the yoke (31), in which the armature (33) in the form of an uniform part made of a plate or a strip or a wire or any other hot or cold formed prefabricate consisting of steel or any other metallic alloy having pre-determined magnetic properties is pivotally interconnected with said yoke (31), and wherein said armature (33) is furnished with a resting surface (331), which is located on the one side of said pivot point (333) and is adapted for simultaneous resting of the armature (33) on all three arms (311, 312, 313) of the yoke (31), while on the opposite side of said pivot point (333) the armature (33) is furnished with a cantilever portion (332) protruding away from the yoke (31),in which it is mechanically interconnected with a spring (34).

IPC 8 full level

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