

Title (en)
CURRENT CONTACT SYSTEM FOR A CURRENT SWITCH

Title (de)
STROMKONTAKTANORDNUNGEN EINES STROMSCHALTERS

Title (fr)
ENSEMBLES CONTACTS D'UN COMMUTATEUR DE COURANT

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Application
EP 99926225 A 19990706

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• DE 19830232 A 19980707

Abstract (en)
[origin: DE19830232A1] According to the invention, a mobile first current contact system (K1) at its end has a switching contact (P4) and a U-shaped arcing horn (R1). A fixed second current contact system (K2) at its end has a switching contact (P1) and a U-shaped current conductor loop (R2). Said current conductor loop (R2) in its U-shaped part consists of a bimetallic strip made of steel (2) on the inside and copper (3) on the outside; contiguous thereto the invention provides for two opposite switching contacts (P2, P3) and, at the end side, an arcing horn (3'). When the current switch is closed the first current contact system (K1) is shifted to the left against the direction of an arrow (5) so that all four switching contacts (P1-P4) are situated on top of each other in pressure contact. When the current switch is opened the contact pairs (P1, P2) are separated, so that a current (4) is switched from them into the current conductor loop (R2) (see hatched line in the figure). After normalization of the current conductor loop (R2) the contact pair (P3, P4) is also separated so that an electric arc (6) is created which by the asymmetric current conduction in the current conductor loop (R2) is driven onto the arcing horns (3', R1). In this way the electric arc is rapidly driven away from its original point of contact and increasingly exposed to a magnetic field in an asymmetric manner so that its operating voltage rises rapidly. This contact system is easy and economical to produce and ensures reduced contact erosion.

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