

Title (en)

A vacuum interrupter and methods of manufacturing the same.

Title (de)

Vakuumschalter und Verfahren zur Herstellung desselben.

Title (fr)

Interrupteur à vide et méthodes pour sa fabrication.

Publication

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Application

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Abstract (en)

A vacuum interrupter of the invention includes, substantially an envelope including a cylindrical housing (10) made of a metallic material, a disc-shaped upper end plate (12) made of an inorganic insulating material having an aperture in the center portion thereof and a disc-shaped lower end plate (14) made of an inorganic insulating material having an aperture in the center portion thereof, an electrical contact member including a stationary contact rod (16) inserted into said envelope through said aperture of the upper end plate, a stationary electrical contact (18) secured to said stationary contact rod, a movable contact rod (20) inserted into said envelope through said aperture of the lower end plate and a movable electrical contact (22) secured to said movable contact, a first sealing means for sealing hermetically said upper end plate to said housing and including a first auxiliary sealing member (30) made of a plastic deformable metallic material which is deformable by the thermal stress and a metallized portion provided between said first auxiliary sealing member and said upper end plate, a second sealing member for sealing hermetically said lower end plate to said housing and including a second auxiliary sealing member (32) made of a plastic deformable metallic material which is deformable by the thermal stress and a metallized portion provided between said second auxiliary sealing member and said lower end plate, first supporting means for supporting and securing hermetically said stationary contact rod to said upper end plate including a metallized portion provided between said upper end plate and said stationary contact rod, and hermetic seal means for sealing movably and hermetically said movable contact rod (20) to said lower end plate including a bellows (40) for securing said movable contact rod to said lower end plate and a metallized portion (34b) provided between said lower end plate and said bellows. According to the present invention, the sealing performance of the envelope is enhanced by using the auxiliary sealing members in the sealing portions of the envelope.

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