Title (en)

OVERVOLTAGE PROTECTION ARRANGEMENT CONSISTING OF A HORN SPARK GAP ACCOMMODATED IN AN INSULATING HOUSING

Title (de)

ÜBERSPANNUNGSSCHUTZANORDNUNG, BESTEHEND AUS EINER IN EINEM ISOLIERENDEN GEHÄUSE BEFINDLICHEN HÖRNERFUNKENSTRECKE

Title (fr)

ENSEMBLE DE PROTECTION CONTRE LES SURTENSIONS CONSTITUÉ D'UN ÉCLATEUR À CORNES SE TROUVANT DANS UN BOÎTIER D'ISOLATION

Publication

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Application

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Abstract (en)

[origin: WO2019166170A1] The invention relates to an overvoltage protection arrangement consisting of a horn spark gap accommodated in an insulating housing (1) having a deion chamber. A trigger electrode is located in the ignition area of the horn spark gap. A varistor is also present, electrically connected in series to the horn spark gap. According to the invention, a first and a second disconnection apparatus are formed in the housing, wherein the first disconnection apparatus (2) is in heat-conducting connection with the varistor and, when a limit temperature is reached or exceeded, releases a spring-loaded slide (3) which interrupts the series connection between varistor and horn spark gap. Furthermore, the second disconnection apparatus (13) comprises a fusible conductor which is located inside the deion chamber, for example, and can be exposed there to an arc, wherein the fusible conductor holds a spring-loaded disconnector element (14) in a first position and releases this disconnector element (14) when fused as a result of the effects of the arc in such a manner that the disconnector element (14) adopts a second position, wherein an electrical connection to the trigger electrode is interrupted when the second position is reached. A three-pointed, rotatably mounted star or a circular disc with lugs or prongs is formed in the housing such that a first star point (7) is carried along by the slide (3) as it moves to interrupt the series connection. In the same way, a second star point (16) is carried, as the disconnector element (14) moves, from the first to the second position, wherein each movement of the star results in a rotation of the star around its axis of rotation (17) with the consequence that a third point of the star (10) releases a spring-loaded pivoting lever (8) which operates a remote signalling contact (11) and/or a visual fault status display (12).

IPC 8 full level

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