

Title (en)

OVERVOLTAGE PROTECTION DEVICE WITH A THERMAL DISCONNECTION APPARATUS

Title (de)

ÜBERSPANNUNGSSCHUTZGERÄT MIT THERMISCHER ABTRENNVORRICHTUNG

Title (fr)

APPAREIL DE PROTECTION CONTRE LES SURTENSIONS AVEC DISPOSITIF DE SÉPARATION THERMIQUE

Publication

EP 2294589 B1 20151021 (DE)

Application

EP 09757425 A 20090527

Priority

- EP 2009056470 W 20090527
- DE 102008026555 A 20080603

Abstract (en)

[origin: WO2009147043A1] The invention relates to an overvoltage protection device with a thermal disconnection apparatus and an error display (11) as well as a plurality of varistors (3), in particular disc-shaped varistors, wherein each discharge path is assigned at least one varistor and the thermal disconnection points (4) are in series with the respective varistor. Chambers (2) for accommodating the varistors are provided in the device housing (1). A pivotably mounted lever (10) with a display area (11) is also provided, wherein the display area is in the region of a housing window. Plug connections (6) extend through the bottom of the housing in order to establish an electrical connection to a base part. The thermal disconnection points each comprise a spring-prestressed (14) clip (9) which is electrically and mechanically connected to the respective varistor using a solder with a low melting point. The spring-prestressed clips are formed by a stamped and bent part which has finger-like extensions (9) starting from a common connecting limb. At least one plug connection is provided on the connecting limb. The finger-like extensions have, in the region of the free end thereof, a slotted recess (8) into which a connection wire or a connection leg of a varistor is respectively directly soldered. Furthermore, a heat trap is situated in the region downstream of the soldering point in the direction of the connecting limb, wherein a separate spring force is applied to each finger-like extension.

IPC 8 full level

H01C 7/12 (2006.01)

CPC (source: EP)

H01C 7/12 (2013.01)

Cited by

WO2017211578A1; US10629399B2; WO2024059022A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 102008026555 A1 20091210; DE 102008026555 B4 20160804; CN 102057449 A 20110511; CN 102057449 B 20120905;
EP 2294589 A1 20110316; EP 2294589 B1 20151021; ES 2559754 T3 20160215; PL 2294589 T3 20160429; RU 2010150289 A 20120720;
WO 2009147043 A1 20091210

DOCDB simple family (application)

DE 102008026555 A 20080603; CN 200980120447 A 20090527; EP 09757425 A 20090527; EP 2009056470 W 20090527;
ES 09757425 T 20090527; PL 09757425 T 20090527; RU 2010150289 A 20090527