Title (en)

HEAT-SENSITIVE PROTECTION DEVICE FOR A SURGE ARRESTER INCORPORATED IN SURGE PROTECTOR ASSEMBLIES FOR TELEPHONE LINES

Publication

EP 0312729 B1 19911030 (DE)

Application

EP 88113259 A 19880813

Priority

- DE 3735837 A 19871020
- DE 3820272 A 19880610

Abstract (en)

[origin: JPH01109626A] PURPOSE: To suppress overvoltage by accommodating a helical spring in a small chamber provided separately from a housing body, by providing a plastic partition wall as a fusing element having thermoplasticity between two chambers, and thereby using just a small number of simple parts. CONSTITUTION: When an overvoltage is generated, an overcurrent passes through a contact spring 15 to flow into a contact 8 of an overvoltage suppression device 6. A gaseous discharge path is prepared between a contact 7 and the contact 8 of the device 6, and an electric arc is formed between the contacts 7 and 8 of the device 6. On the other hand, a small chamber 9 having a helical spring 3 is provided in the proximity of a small chamber 14 for accepting the device 6. By heating the device 6 at a high temperature, a partition wall 1 forming a boundary between the small chambers 9 and 14 can exhibit plasticity, and then a spring force acts on spring arms 4 and 5 of the helical spring 3 pressed against the partition wall 1, so that the spring arms 4 and 5 pierces through the partition wall 1. In this manner, the spring arms 4 and 5 are butted with the contacts 8 and 7 of the device 6 respectively to thereby establish an electrical connection between the spring 3 and the device 6. Thus, the arc formed in the device 6 is short-circuited by the spring 3.

IPC 1-7

H01T 1/14

IPC 8 full level

H01H 37/76 (2006.01); **H01T 1/14** (2006.01)

CPC (source: EP US)

H01T 1/14 (2013.01 - EP US)

Cited by

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EP 0312729 A1 19890426; **EP 0312729 B1 19911030**; AR 241296 A1 19920430; AT E69126 T1 19911115; AU 2409788 A 19890420; AU 606223 B2 19910131; BR 8805396 A 19890620; CA 1330826 C 19940719; CN 1012867 B 19910612; CN 1032716 A 19890503; DE 3820272 C1 19890406; DE 3865943 D1 19911205; ES 2026980 T3 19920516; GR 3003039 T3 19930217; HK 84092 A 19921106; IN 169696 B 19911207; JP H01109626 A 19890426; JP H0576125 B2 19931022; MX 164630 B 19920910; RU 2024136 C1 19941130; US 4887183 A 19891212; YU 195888 A 19910630; YU 47295 B 19950131

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