

Title (en)

SURGE ARRESTER HAVING AN OPTICAL FAULT INDICATOR

Title (de)

ÜBERSpannungsableiter mit einem optischen Fehlerindikator

Title (fr)

DÉRIVATION DE SURTENSION COMPORTANT UN INDICATEUR OPTIQUE D'ERREUR

Publication

EP 2386108 A1 20111116 (DE)

Application

EP 09760893 A 20091201

Priority

- EP 2009066112 W 20091201
- DE 102009004345 A 20090112
- DE 102009022069 A 20090520

Abstract (en)

[origin: WO2010079015A1] The invention relates to a surge arrester which, in a housing (7), has at least one arrester element (3), in particular a varistor, a solder-fixed thermal disconnection point (5), which is connected to the arrester element, and a damage indicating device (11) for displaying the fault state, wherein the damage indicating device also queries the state of a thermal disconnection device, in particular a fuse, and presents the possible fault states of the arrester element and of the disconnection device mechanically in an OR combination in a suitable way. Furthermore the thermal disconnection device comprises a movable component, which is fixed by an indicator wire and is released after the melting or destruction of said wire. According to the invention, a guide part (9) for a compression spring (10) or similar force accumulator is provided on or in the housing, wherein a first spring end acts on the thermal disconnection point directly or indirectly by way of a disconnection plunger or disconnection cylinder, and a second end of the compression spring, opposite of the first end, acts on a slide (8) directly or indirectly by way of a guide ring. Furthermore, the slide is subjected to a force on a first side in the displacement direction directly by a further spring (12) or indirectly by the damage indicating device. The second side of the slide, opposite of the first side, is operatively connected to the movable component of the thermal disconnection device in such a way that it follows the release movement of the movable pin under the action of force from the compression spring. The second side of the slide is designed in such a way that a longitudinal slide movement is able to take place as a result of the force of the further spring with the thermal disconnection point triggered and the component of the thermal disconnection device fixed and also with an unchanged position between the slide and guide part and, furthermore, a reciprocating movement relative to the guide part is able to take place, with a subsequent longitudinal slide movement, with the indicator wire released, together with the movable component of the thermal disconnection device. The second end of the spring or at least part of the guide ring engages in a cutout or depression in the slide in order to lock the latter and the damage indicating device in the proper state of the arrester.

IPC 8 full level

H01C 7/12 (2006.01)

CPC (source: EP US)

H01C 7/12 (2013.01 - EP US)

Citation (search report)

See references of WO 2010079015A1

Cited by

CN104078292A

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 SM TR

DOCDB simple family (publication)

WO 2010079015 A1 20100715; CN 102272864 A 20111207; CN 102272864 B 20140319; DE 102009022069 A1 20100722; DE 102009022069 B4 20161020; EP 2386108 A1 20111116; EP 2386108 B1 20120919; PL 2386108 T3 20130228; SI 2386108 T1 20130131; US 2012014028 A1 20120119; US 8705221 B2 20140422

DOCDB simple family (application)

EP 2009066112 W 20091201; CN 200980154282 A 20091201; DE 102009022069 A 20090520; EP 09760893 A 20091201; PL 09760893 T 20091201; SI 200930401 T 20091201; US 200913138090 A 20091201