

Title (en)

LOAD CURRENT-CARRYING FUSE COMPRISING AN INTERNAL SWITCHING ELEMENT

Title (de)

LASTSTROMTRAGENDE SICHERUNG MIT INTERNEM SCHALTELEMENT

Title (fr)

DISJONCTEUR RETARDÉ DE COURANT SOUS CHARGE AVEC ÉLÉMENT DE COMMUTATION INTERNE

Publication

EP 3347911 A1 20180718 (DE)

Application

EP 16822640 A 20161216

Priority

- DE 102015225377 A 20151216
- EP 2016081330 W 20161216

Abstract (en)

[origin: WO2017103036A1] The invention relates to a load current-carrying fuse comprising an internal switching element having a protective element (F), wherein the protective element (F) has a first connection (FA1) for connection to a first potential (L) of a supply system and has a second connection (FA2) which can be connected to a second potential (N) of the supply system by means of a device (Z) to be protected, wherein the protective element (F) has a fusible conductor (D) which connects the first connection (FA1) and the second connection (FA2) of the protective element (F), wherein the protective element (F) further has a third connection (FA3) which can be connected to the second potential (N) of the supply system and which is arranged adjacent to, but electrically insulated from, the fusible conductor (D), wherein the fusible conductor (D) has a constriction (E) in the region of the adjacent connection (FA3), wherein the constriction is designed such that the fusible conductor (D) has an electrically conductive fusible means (SM) in the region of the constriction (E), wherein the fusible means (SM) has a lower fusion point than the fusible conductor (D) itself, wherein the load current-carrying fuse further has an internal switching element which internally monitors the protective element (F) and can implement targeted disconnection, wherein the internal switching element has a voltage-sensitive element (TVS) which is connected to the first connection (FA1) by way of a connection, and which is arranged adjacent to a further connection of the overvoltage-sensitive element (TVS) but electrically insulated from the fusible conductor (D) and adjacent to, but electrically insulated from, the third connection (FA3).

IPC 8 full level

H01H 85/048 (2006.01); **H01H 85/44** (2006.01)

CPC (source: EP US)

H01H 85/0241 (2013.01 - US); **H01H 85/048** (2013.01 - EP US); **H01H 85/055** (2013.01 - US); **H01H 85/44** (2013.01 - EP US); **H01H 2085/0283** (2013.01 - US)

Citation (search report)

See references of WO 2017103036A1

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102015225377 A1 20170622; CN 108604518 A 20180928; CN 108604518 B 20200414; EP 3347911 A1 20180718; EP 3347911 B1 20181212; US 2017178856 A1 20170622; US 9831057 B2 20171128; WO 2017103036 A1 20170622

DOCDB simple family (application)

DE 102015225377 A 20151216; CN 201680073759 A 20161216; EP 16822640 A 20161216; EP 2016081330 W 20161216; US 201615380586 A 20161215