

Title (en)
MULTI-STAGE PROTECTION DEVICE FOR THE OVERCURRENT- AND OVERVOLTAGE-PROTECTED TRANSFER OF ELECTRICAL ENERGY

Title (de)
MEHRSTUFIGE SCHUTZVORRICHTUNG ZUR ÜBERSTROM- UND ÜBERSpannungSGESCHÜTZTEN ÜBERTRAGUNG VON ELEKTRISCHER ENERGIE

Title (fr)
DISPOSITIF DE PROTECTION À PLUSIEURS ÉTAGES PERMETTANT LE TRANSFERT D'ÉNERGIE ÉLECTRIQUE PROTÉGÉ CONTRE LES SURTENSIONS ET LES SURINTENSITÉS

Publication
EP 3807967 A1 20210421 (DE)

Application
EP 19724863 A 20190522

Priority
• BE 201805391 A 20180613
• EP 2019063234 W 20190522

Abstract (en)
[origin: WO2019238369A1] The disclosure relates to a protection device (100) for transferring energy from a two-pole voltage terminal (101) to an electrical load (103). A first fuse circuit (105) is designed to interrupt the flow of a line current from the voltage terminal (101) to the electrical load (103) when said line current reaches a first current intensity limit value. An overvoltage protection circuit (107) is designed to short-circuit the voltage terminal (101) when a first voltage limit value is reached, in order to force a line current that reaches the first current intensity limit value and thus to trip the first fuse circuit (105). The overvoltage protection circuit (107) is connected downstream of the first fuse circuit (105) and upstream of the electrical load (103). A second fuse circuit (109) is connected downstream of the overvoltage protection circuit (107) and upstream of the electrical load (103) and is designed to control the overvoltage protection circuit (107) to short-circuit the voltage terminal (101) when the voltage at the second fuse circuit (109) reached a second voltage limit value. The second voltage limit value is defined in dependence on a nominal voltage of the electrical load (103).

IPC 8 full level
H02H 3/033 (2006.01); **H01H 37/76** (2006.01); **H01H 83/20** (2006.01); **H01H 85/46** (2006.01); **H02H 1/00** (2006.01); **H02H 3/02** (2006.01); **H02H 3/027** (2006.01); **H02H 3/087** (2006.01); **H02H 3/10** (2006.01); **H02H 3/20** (2006.01); **H02H 5/04** (2006.01); **H02H 9/04** (2006.01); **H03K 17/082** (2006.01)

CPC (source: EP US)
H01H 85/0241 (2013.01 - EP); **H01H 85/46** (2013.01 - EP); **H02H 1/0007** (2013.01 - US); **H02H 1/0038** (2013.01 - EP); **H02H 3/023** (2013.01 - EP); **H02H 3/027** (2013.01 - EP); **H02H 3/033** (2013.01 - EP); **H02H 3/087** (2013.01 - EP); **H02H 3/10** (2013.01 - EP US); **H02H 3/202** (2013.01 - EP); **H02H 5/041** (2013.01 - EP); **H02H 5/046** (2013.01 - EP); **H02H 9/041** (2013.01 - EP)

Citation (search report)
See references of WO 2019238369A1

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