

Title (en)  
HYBRID SWITCH AND CONTROL DEVICE

Title (de)  
HYBRIDSCHALTER UND STEUERVORRICHTUNG

Title (fr)  
DISPOSITIF D'INTERRUPTEUR HYBRIDE ET DE COMMANDE

Publication  
**EP 4118670 A1 20230118 (FR)**

Application  
**EP 21709699 A 20210308**

Priority  
• FR 2002320 A 20200309  
• EP 2021055796 W 20210308

Abstract (en)  
[origin: WO2021180658A1] The present invention relates to a hybrid switch and control device allowing an electric arc to be extinguished and the electric current to be switched in an electrical circuit, said device comprising, firstly, a hybrid switch (1, 2) comprising an electromechanical switch (1) and, in parallel, an electronic switch (2) for assisting in extinguishing an electric arc and in switching the electric current resulting from said arc, said electromechanical switch (1) comprising at least one electrical contact (1a) across the terminals of which is connected said electronic switch (2) and, secondly, an electronic control circuit (3) able to control said electronic switch (2) when said electric arc occurs and until the electric current is switched. The electronic control circuit (3) consists of a semiconductor (Q2)-based analog electronic control circuit (3) and is configured to detect the inception of an electric arc occurring across the terminals of the electric contact (1a) and to deliver, to an output (S) of said electronic control circuit (3), an output signal able to control said electronic switch (2) according to a temporal sequence for extinguishing the electric arc and for switching the electric current in multiple phases.

IPC 8 full level  
**H01H 9/50** (2006.01); **H01H 9/54** (2006.01)

CPC (source: EP)  
**H01H 9/50** (2013.01); **H01H 9/542** (2013.01); **H01H 2009/543** (2013.01); **H01H 2009/544** (2013.01); **H01H 2009/545** (2013.01); **H01H 2009/546** (2013.01)

Citation (search report)  
See references of WO 2021180658A1

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**FR 3107987 A1 20210910**; AU 2021234895 A1 20220915; AU 2021234895 B2 20240208; CN 115485801 A 20221216; EP 4118670 A1 20230118; WO 2021180658 A1 20210916

DOCDB simple family (application)  
**FR 2002320 A 20200309**; AU 2021234895 A 20210308; CN 202180019320 A 20210308; EP 2021055796 W 20210308; EP 21709699 A 20210308