

Title (en)
ARRANGEMENT FOR AN ELECTRIC SWITCHING DEVICE

Title (de)
ANORDNUNG FÜR EINE ELEKTRISCHE SCHALTVORRICHTUNG

Title (fr)
AGENCEMENT POUR UN DISPOSITIF DE COMMUTATION ÉLECTRIQUE

Publication
EP 3051559 A1 20160803 (EN)

Application
EP 16152815 A 20160126

Priority

- DE 102015201700 A 20150130
- DE 102015208134 A 20150430

Abstract (en)

The invention relates to an arrangement (1) for an electric switching device, in particular a relay. Such switching devices are known from the prior art and usually have at least one switching unit (3) which is movable from a first switching position (100) into a second switching position (200). Moreover, they often have a restoring element (6) which, at least in the second switching position (200), exerts a restoring force (60) directed towards the first switching position (100) and acting on the switching unit (3). Such a restoring element (6) can be, for example, a restoring spring. The restoring element (6) attempts to move the switching unit (3) into the first switching position (100). This movement is normally stopped by a stop. However, a loud noise is generated by the impact on the hard stop so that such switching devices have hitherto not been used in environments in which such noises can disturb or distract a user such as, for example, in vehicle interiors. The object of the present invention is to provide a solution in which quieter switching of the arrangement (1) is possible. According to the invention, this is achieved in that the arrangement (1) comprises a return spring (7) which exerts a counterforce (70) acting on the switching unit (3), wherein counterforce (70) and restoring force (60) cancel each other out in the first switching position (100) and wherein the fastening location (8) of the return spring (7) is movable with the switching unit (3).

IPC 8 full level
H01H 50/28 (2006.01); **H01H 50/30** (2006.01); **H01H 50/60** (2006.01)

CPC (source: EP)
H01H 50/28 (2013.01); **H01H 50/305** (2013.01); **H01H 50/60** (2013.01)

Citation (search report)

- [X] JP S6080644 U 19850604
- [X] US 2471181 A 19490524 - WILSON JOHN M
- [A] JP S6154131 A 19860318 - MATSUSHITA ELECTRIC WORKS LTD
- [A] JP H0644881 A 19940218 - FUJITSU LTD

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)
EP 3051559 A1 20160803

DOCDB simple family (application)
EP 16152815 A 20160126