

Title (en)
Electromagnetic switching device

Title (de)
Elektromagnetisches Schaltgerät

Title (fr)
Appareil de commutation électromagnétique

Publication
EP 2034498 A1 20090311 (DE)

Application
EP 07017331 A 20070904

Priority
EP 07017331 A 20070904

Abstract (en)
The device (1) has a busbar (7) interrupted by a switching element (6). A conductive solenoid (4) i.e. drive solenoid, a yoke (3), an armature (5) and the switching element are coupled with each other in such a manner that the switching element is operable by energization of the solenoid. The busbar is made of a metal/plastic hybrid material. A current sensor (18) is integrated in the busbar. The switching element includes a switching bridge, which is made from the hybrid material. A housing (2) is made from a plastic-bonded magnetic material.

Abstract (de)
Ein elektromagnetisches Schaltgerät weist eine Antriebsspule (4), ein Joch (3), einen Anker (5) und eine durch ein Schaltelement (6) unterbrochene Stromschiene (7) auf, wobei die Antriebsspule (4), das Joch (3), der Anker (5) und das Schaltelement (6) derart miteinander gekoppelt sind, dass das Schaltelement (6) durch Bestromung der Antriebsspule (4) betätigbar ist. Die Stromschiene (7) ist aus einem Metall-Kunststoff-Hybridmaterial gefertigt.

IPC 8 full level
H01H 50/14 (2006.01); **H01H 1/58** (2006.01); **H01F 7/16** (2006.01); **H01H 1/029** (2006.01); **H01H 47/04** (2006.01); **H01H 50/54** (2006.01)

CPC (source: EP)
H01H 1/58 (2013.01); **H01H 50/14** (2013.01); **H01F 7/1638** (2013.01); **H01H 1/029** (2013.01); **H01H 50/546** (2013.01); **H01H 2047/046** (2013.01)

Citation (applicant)
• DE 10331339 A1 20050203 - SIEMENS AG [DE]
• WO 0186682 A2 20011115 - MOELLER GEBAEUDEAUTOMATION KG [AT], et al
• WO 0068963 A1 20001116 - TYCO ELECTRONICS LOGISTICS AG [CH], et al
• US 2006138646 A1 20060629 - AISENBREY THOMAS [US]
• WO 0198006 A2 20011227 - ROCKWELL TECH LLC [US]

Citation (search report)
• [Y] WO 0186682 A2 20011115 - MOELLER GEBAEUDEAUTOMATION KG [AT], et al
• [Y] WO 0068963 A1 20001116 - TYCO ELECTRONICS LOGISTICS AG [CH], et al
• [Y] US 2006138646 A1 20060629 - AISENBREY THOMAS [US]
• [Y] EP 1770740 A2 20070404 - ROCKWELL AUTOMATION TECH INC [US]
• [DY] EP 1101233 B1 20020220 - SIEMENS AG [DE]
• [DA] DE 10331339 A1 20050203 - SIEMENS AG [DE]

Cited by
CN103943385A; DE102012219075A1; DE102012219075B4; EP2355638A3; DE102017204949A1; CN110603615A; US11955265B2

Designated contracting state (EPC)
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Designated extension state (EPC)
AL BA HR MK RS

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