

Title (en)
ELECTROMAGNETIC RELAY

Title (de)
ELEKTROMAGNETISCHES RELAIS

Title (fr)
RELAIS ÉLECTROMAGNÉTIQUE

Publication
EP 3113204 A4 20170927 (EN)

Application
EP 14841353 A 20140806

Priority
• JP 2014032940 A 20140224
• JP 2014070765 W 20140806

Abstract (en)
[origin: EP3113204A1] Provided is an electromagnetic relay which prevents contacts from heating due to wearing particles caused by opening and closing of the contacts. To this end, the electromagnetic relay is configured to reciprocatingly move an actuator plate by electrically energizing an electromagnetic unit, causing a plurality of neighboring movable contacts to make and break contacts with a plurality of neighboring stationary contacts opposing the movable contacts. A shield plate is provided between one pair of the opposing movable and stationary contacts 57, 31 and the other pair of opposing movable and stationary contacts 58, 32.

IPC 8 full level
H01H 50/56 (2006.01); **H01H 1/64** (2006.01); **H01H 9/38** (2006.01); **H01H 50/54** (2006.01); **H01H 50/64** (2006.01)

CPC (source: EP)
H01H 1/26 (2013.01); **H01H 1/64** (2013.01); **H01H 9/38** (2013.01); **H01H 50/541** (2013.01); **H01H 50/56** (2013.01); **H01H 50/642** (2013.01); **H01H 2050/028** (2013.01)

Citation (search report)
• [XYI] EP 0286432 A2 19881012 - PED LTD [GB]
• [XY] EP 1837890 A1 20070926 - ELESTA RELAYS GMBH [CH]
• [X] EP 2639810 A1 20130918 - PANASONIC CORP [JP]
• [X] EP 1732099 A2 20061213 - OMRON TATEISI ELECTRONICS CO [JP]
• [YA] FR 1431326 A 19660311 - STOTZ KONTAKT GMBH
• [A] DE 9404775 U1 19940609 - GRUNER KG RELAIS FABRIK [DE]
• See references of WO 2015125319A1

Cited by
US2018240631A1; EP4266342A4; US10811205B2; US2019013172A1; US10650996B2; US10784055B2; US11133140B2

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

DOCDB simple family (publication)
EP 3113204 A1 20170104; EP 3113204 A4 20170927; EP 3113204 B1 20191016; BR 112015004482 A2 20170704; CN 105050675 A 20151111; CN 105050675 B 20170620; JP 2015159025 A 20150903; JP 5773006 B1 20150902; MX 2015003171 A 20160111; RU 2015107867 A 20180329; RU 2015107867 A3 20180329; WO 2015125319 A1 20150827

DOCDB simple family (application)
EP 14841353 A 20140806; BR 112015004482 A 20140806; CN 201480001971 A 20140806; JP 2014032940 A 20140224; JP 2014070765 W 20140806; MX 2015003171 A 20140806; RU 2015107867 A 20140806