

Title (en)

DIRECT-CURRENT CIRCUIT BREAKER, MECHANICAL SWITCHING DEVICE FOR DIRECT-CURRENT CIRCUIT BREAKER AND SEMICONDUCTOR SWITCHING DEVICE FOR DIRECT CURRENT CIRCUIT BREAKER

Title (de)

GLEICHSTROMSCHUTZSCHALTER, MECHANISCHE SCHALTVORRICHTUNG FÜR EINEN GLEICHSTROMSCHUTZSCHALTER UND HALBLEITERSCHALTVORRICHTUNG FÜR EINEN GLEICHSTROMSCHUTZSCHALTER

Title (fr)

DISJONCTEUR À COURANT CONTINU, DISPOSITIF INTERRUPTEUR MÉCANIQUE POUR DISJONCTEUR À COURANT CONTINU ET DISPOSITIF INTERRUPTEUR À SEMI-CONDUCTEURS POUR DISJONCTEUR À COURANT CONTINU

Publication

**EP 3640964 A4 20210317 (EN)**

Application

**EP 18817267 A 20180514**

Priority

- JP 2017022322 W 20170616
- JP 2018018571 W 20180514

Abstract (en)

[origin: EP3640964A1] A direct-current circuit breaker according to an embodiment of the present invention has a mechanical switching part, a semiconductor switching part and a commutation device. The mechanical switching part has at least one mechanical switching unit and an insulating column which supports the at least one mechanical switching unit. The mechanical switching unit has at least one unitary switching part. The unitary switching part has a mechanical contact part, a sealed container, an operation rod and an operation mechanism. The mechanical contact part has a fixed contact and a movable contact. The mechanical contact part is electrically insulated from the ground. The sealed container encloses the mechanical contact part and an insulating gas. The sealed container is electrically insulated from the ground. The operation rod is connected to the movable contact. The operation rod extends from the inside of the sealed container towards the outside thereof. The operation mechanism is connected to the operation rod. The operation mechanism causes the movable contact and the fixed contact to be brought into contact with and separated from each other. The operation mechanism is provided at the same electric potential as that of the movable contact.

IPC 8 full level

**H01H 33/59** (2006.01); **H01H 9/54** (2006.01); **H01H 33/666** (2006.01); **H02B 13/02** (2006.01); **H02B 13/035** (2006.01)

CPC (source: EP)

**H01H 9/542** (2013.01); **H01H 33/14** (2013.01); **H01H 33/596** (2013.01); **H01H 33/6661** (2013.01); **H01H 2009/543** (2013.01); **H01H 2009/544** (2013.01)

Citation (search report)

- [IY] EP 3125262 A1 20170201 - TOSHIBA KK [JP]
- [Y] JP 2016187275 A 20161027 - TOSHIBA CORP
- [A] JP 2016004699 A 20160112 - TOSHIBA CORP
- See references of WO 2018230224A1

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 3640964 A1 20200422**; **EP 3640964 A4 20210317**; **EP 3640964 B1 20240110**; CN 110678951 A 20200110; CN 110678951 B 20210921; JP 6710811 B2 20200617; JP WO2018230224 A1 20191107; WO 2018229970 A1 20181220; WO 2018230224 A1 20181220

DOCDB simple family (application)

**EP 18817267 A 20180514**; CN 201880033873 A 20180514; JP 2017022322 W 20170616; JP 2018018571 W 20180514; JP 2019525217 A 20180514