

Title (en)

LOW-VOLTAGE CIRCUIT BREAKER WITH RESIDUAL CURRENT TRIPPING DEVICE

Title (de)

NIEDERSpannungsschutzschalter mit Reststromauslösungsvorrichtung

Title (fr)

DISJONCTEUR BASSE TENSION AVEC DISPOSITIF DE DÉCLenchement SUR COURANT DIFFéRENTIEL

Publication

EP 3171386 A4 20180425 (EN)

Application

EP 15822772 A 20150128

Priority

- CN 201410341490 A 20140717
- CN 2015071743 W 20150128

Abstract (en)

[origin: EP3171386A1] The invention relates to a low-voltage circuit breaker with a residual current trip device. A plurality of circuit breaker poles which are arranged in parallel and the residual current trip device are arranged in a molded insulation shell, the circuit breaker poles are uniformly arranged at the two sides of the residual current trip device, adjacent circuit breaker poles at each side share a composite operating mechanism which is used for controlling the on and off of a movable contact and a static contact, each composite operating mechanism is provided with a handle, a trip connection rod pivotally arranged on a rotation plate and a trip rod. The residual current trip device comprises a residual current monitoring element, an electromagnetic relay, an auxiliary trip mechanism with an auxiliary handle, a rotation connection rod mechanically coupled with each composite operating mechanism and a test loop. A linkage element is in mutual mechanical connection and linkage with the auxiliary handle of the auxiliary trip mechanism of the residual current trip device and the handle of each of the composite operating mechanisms at two sides. By the low-voltage circuit breaker, a conductive loop of the circuit breaker poles is effectively reduced, rated current specification can be expanded into 40A, and the width is reduced by nearly one third compared with a spliced product.

IPC 8 full level

H01H 71/10 (2006.01); **H01H 83/22** (2006.01); **H01H 71/16** (2006.01); **H01H 71/24** (2006.01); **H01H 89/00** (2006.01)

CPC (source: EP KR)

H01H 71/10 (2013.01 - KR); **H01H 71/1027** (2013.01 - EP); **H01H 71/128** (2013.01 - KR); **H01H 83/226** (2013.01 - EP); **H01H 71/16** (2013.01 - EP); **H01H 71/2463** (2013.01 - EP); **H01H 2071/1036** (2013.01 - EP); **H01H 2089/005** (2013.01 - EP)

Citation (search report)

- [XA] DE 69931989 T2 20070301 - LEGRAND FRANCE [FR], et al
- See references of WO 2016008297A1

Cited by

CN112531642A; CN111463081A; CN112133610A

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 3171386 A1 20170524; **EP 3171386 A4 20180425**; AU 2015291699 A1 20170309; AU 2015291699 B2 20171102; CN 104134589 A 20141105; CN 104134589 B 20160120; KR 101968181 B1 20190412; KR 20170040261 A 20170412; WO 2016008297 A1 20160121

DOCDB simple family (application)

EP 15822772 A 20150128; AU 2015291699 A 20150128; CN 201410341490 A 20140717; CN 2015071743 W 20150128; KR 20177004351 A 20150128