

Title (en)

Electric circuit breaker with insertion of extra-turns in the magnetic trip mechanism winding

Title (de)

Elektrischer Schützschalter mit Einfügung von zusätzlichen Windungen im Magnetauslöser

Title (fr)

Disjoncteur électrique à insertion de spires du déclencheur magnétique

Publication

EP 0537090 B1 19951213 (FR)

Application

EP 92420350 A 19921005

Priority

FR 9112602 A 19911010

Abstract (en)

[origin: EP0537090A1] The coil of the magnetic trip mechanism (14) of a low-voltage circuit breaker is subdivided into two parts which are connected in such a way that, under normal operation, the nominal current traverses only one (19) of these parts. Upon a short-circuit producing an electrodynamic repulsion of the contacts, the second part (20) of the coil is brought into circuit by switching the arc to an electrode (27) positioned near the contacts. The insertion of extra turns increases the force of displacement of the plunger of the electromagnetic trip mechanism and its force of impact on the moving contact arm in order to accelerate the displacement of the latter towards its open position. <IMAGE>

IPC 1-7

H01H 71/24; H01H 77/06

IPC 8 full level

H01H 71/24 (2006.01); **H01H 9/46** (2006.01); **H01H 71/28** (2006.01); **H01H 71/38** (2006.01)

CPC (source: EP)

H01H 71/2409 (2013.01); **H01H 71/2418** (2013.01); **H01H 9/465** (2013.01); **H01H 71/2463** (2013.01); **H01H 71/2481** (2013.01); **H01H 71/28** (2013.01); **H01H 71/38** (2013.01)

Cited by

CN1298003C; CN104681369A; CN104781902A; CN102163523A; DE10126852A1; DE10126852B4; EP1111750A1; FR2803086A1; CN1322648C; US9355803B2

Designated contracting state (EPC)

BE CH DE ES GB IT LI SE

DOCDB simple family (publication)

EP 0537090 A1 19930414; **EP 0537090 B1 19951213**; DE 69206749 D1 19960125; DE 69206749 T2 19960704; ES 2083131 T3 19960401; FR 2682533 A1 19930416; FR 2682533 B1 19931126

DOCDB simple family (application)

EP 92420350 A 19921005; DE 69206749 T 19921005; ES 92420350 T 19921005; FR 9112602 A 19911010