

Title (en)

Thermal and magnetic circuit breaker tripping mechanism.

Title (de)

Thermischer und magnetischer Auslöser für Selbstschalter.

Title (fr)

Déclencheur magnétothermique de disjoncteur.

Publication

EP 0143022 A1 19850529 (FR)

Application

EP 84401968 A 19841002

Priority

- FR 8317015 A 19831021
- FR 8317016 A 19831021

Abstract (en)

1. A thermal and magnetic tripping mechanism cooperating with the actuating mechanism of a multipole circuit breaker and comprising per pole a first electromagnetic tripping mechanism (38) and a second thermal tripping mechanism with a bimetal strip (36), said first tripping mechanism comprising a magnetic circuit with an air gap through which the induction flux generated by an operating coil flows, and a movable armature (50) capable of being attracted against a polar surface of the magnetic circuit when the current intensity flowing in the coil (42) exceeds a preset threshold causing tripping of the mechanism, said coil comprising one or more turns according to the tripping characteristics, a flexible connecting conductor (62) being securedly united directly by one of its ends to a movable contact arm (23) of the pole, to provide the electrical connection with the coil (42), characterized in that the other end of the flexible conductor (62) is connected by soldering to the bimetal strip (36), and that the intermediate part of the same flexible conductor constitutes the winding of the coil (42), the assembly being arranged to ensure fixed mounting of the electromagnetic tripping mechanism (38) fitted between the contact arm (23) and the thermal tripping mechanism with bimetal strip (36).

Abstract (fr)

L'invention concerne un déclencheur magnétothermique destiné à coopérer avec le mécanisme d'un disjoncteur à basse tension pour provoquer un déclenchement lors de l'apparition d'un courant de surcharge ou de court-circuit. Un premier déclencheur électromagnétique (38) comporte une culasse (40) ferromagnétique en forme de U entourant une bobine (42) de commande montée sur un noyau (44) fixe. Le bras de contact (23) est relié au bilame (36) au moyen d'un conducteur souple (62) continu dont la partie intermédiaire est enroulée autour du noyau (44) pour constituer la bobine (42). Cette dernière comprend une ou plusieurs spires du conducteur (62) selon les caractéristiques de déclenchement. Un deuxième déclencheur thermique à bilame (36) comporte un chauffeur (90) en forme de lyre assurant un chauffage mixte du bilame (36).

IPC 1-7

H01H 71/40

IPC 8 full level

H01H 71/16 (2006.01)

CPC (source: EP)

H01H 71/164 (2013.01); **H01H 71/2472** (2013.01); **H01H 71/40** (2013.01)

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Designated contracting state (EPC)

AT BE CH DE GB IT LI NL SE

DOCDB simple family (publication)

EP 0143022 A1 19850529; EP 0143022 B1 19880601; DE 3471809 D1 19880707

DOCDB simple family (application)

EP 84401968 A 19841002; DE 3471809 T 19841002