

Title (en)
Protective excess current circuit-breaking switch.

Title (de)
Überstromschutzschalter.

Title (fr)
Disjoncteur de protection à courant excessif.

Publication
EP 0091040 A2 19831012 (DE)

Application
EP 83103009 A 19830326

Priority
DE 3212474 A 19820403

Abstract (en)
1. Excess-current circuit-breaker 1. with an actuation element for manual switching on/off, 2. with a toggle lever element (extending lever 5, 6, knuckle joint 7) which is articulated at the housing-internal end of the actuation element and can be locked for instance in extended position by means of a latching lever (11) and 2.1 is pivotably connected on the contact side to a swivelling contact arm (9) for opening and closing of the main contact (48), and 2.2 in the case of excess current, can be moved from its locked extended position into its bent position by releasing the latching lever (11) by means of impingement by the hinged armature (16) of a magnetic overcurrent trip (15), 3. the contact arm (9) being locked in the switching-on closing movement before closure of the main contact (48) by means of a retention stop (28) which 3.1 is a component part of a retention latch (23) which is longitudinally displaceable substantially in closing direction (51) and 3.1.1 can be locked in retention position (Figs. 5, 6) behind a housing projection (bolt 25) and 3.1.2 can be unlocked when bringing the actuation element into the switching-on end position by impingement of the actuation element (rocker lever 1), whereby the contact arm (9) is released by the retention stop (28) for the abrupt closure of the main contact (48), characterized by the combination of the following features : 4. the retention latch (23) is a separate component decoupled in movement from the contact arm (9) in its opening direction and engages by its retention stop (28) underneath the contact arm (9) in the switching-on closing movement, between its contact end (49) and its joint end (50), and 5. the magnetic yoke (20) of the overcurrent trip (15) extends beyond the coil end on the side of the hinged armature (16) and has an L-shaped shunt-wound bent-off portion (22) engaging over the hinged armature (16).

Abstract (de)
Ein Überstromschutzschalter mit einem Betätigungselement zur manuellen Ein- und Ausschaltung, einem daran angelenkten Kneihebelement sowie einem vor Schließung des Hauptkontaktes mittels eines Rückhalteanschlages verriegelbaren Kontaktarm ist zur Erzielung eines besseren Schaltverhaltens bei kompakter Bauweise und unkomplizierter Handhabung des Schalters dadurch gekennzeichnet, daß der Kontaktarm (9) bei der Einschalt-Schließbewegung zwischen seinem Kontaktende (49) und seinem Gelenkende (50) auf dem Rückhalteanschlag (28) aufliegt und dieser - losgelöst vom Kontakthebel (9) - beim Verbringen des Betätigungselementes in Einschaltstellung in Schließrichtung (51) nachgibt, sowie der Rückhalteanschlag (28) Bestandteil einer im wesentlichen in Schließrichtung (51) längsverschieblichen Rückhalteklinke (23) ist, die in Rückhaltestellung hinter einem Gehäusevorsprung verrastbar ist und in Freigabestellung durch Beaufschlagung des Betätigungselementes ausrastbar ist.

IPC 1-7
H01H 71/52

IPC 8 full level
H01H 71/52 (2006.01)

CPC (source: EP)
H01H 71/528 (2013.01); **H01H 2300/048** (2013.01)

Cited by
EP2688085A1; EP0146528A3; EP0847070A3; US4743878A; GB2176659B; GB2176659A; FR2654253A1; BE1005375A0; EP3767660A1; WO2022028849A1

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
EP 0091040 A2 19831012; EP 0091040 A3 19850327; EP 0091040 B1 19870603; DE 3212474 A1 19831013; DE 3212474 C2 19860206; DE 3371959 D1 19870709; DE 8209597 U1 19861113

DOCDB simple family (application)
EP 83103009 A 19830326; DE 3212474 A 19820403; DE 3371959 T 19830326; DE 8209597 U 19820403