

Title (en)
Circuit breaker with vacuum switch.

Title (de)
Lastschalter mit einem Vakuumschalter.

Title (fr)
Disjoncteur avec interrupteur à vide.

Publication
EP 0070794 A2 19830126 (DE)

Application
EP 82730094 A 19820705

Priority
JP 11115281 A 19810716

Abstract (en)
[origin: ES8305529A1] A load switch includes a vacuum switch in series with an air disconnecting switch. The vacuum switch comprises a fixed electrode, a movable electrode attached to one end of an axially movable control rod and a retaining spring which exerts a resilient force on the control rod tending to separate the electrodes. The air disconnecting switch comprises a conically shaped male contact and an opposing female contact shaped to permit insertion of the male contact therein. The male contact has a relatively large diameter base portion attached to the other end of the control rod and forming a step with the control rod. The female contact has spring loaded locking projections for releasably engaging the step of the male contact and a stopper for exerting a force on the control rod sufficient to close the electrodes of the vacuum switch when the male contact is moved against the stopper after engagement with the female contact. The spring loading of the locking projections of the female contact, the shape of the male contact and the spring constant of the retaining spring are selected such that the force on the control rod during engagement of the male and female contacts is not sufficient to close the electrodes of the vacuum switch, while the force on the control rod during disengagement of those contacts acts to fully separate the electrodes of the vacuum switch prior to the release of the male contact.

Abstract (de)
Ein Trennschalter (3) und ein Vakuumschalter (6) sind elektrisch in Reihe geschaltet und in Achsrichtung verstellbar, wobei die bewegliche Elektrode (6a) des Vakuumschalters (6) mit dem Eindringkontakt (7) des Trennschalters (3) fest verbunden und ein Verbindungselement (9) in Achsrichtung verstellbar in Eingriff mit einem Schleifkontakt (5) kommt und die Trennschalterkontakte (4, 24; 7) relativ zueinander verstellbar sind.

IPC 1-7
H01H 33/66

IPC 8 full level
H01H 33/12 (2006.01); **H01H 33/66** (2006.01); **H01H 33/666** (2006.01); **H01H 9/10** (2006.01)

CPC (source: EP US)
H01H 33/127 (2013.01 - EP US); **H01H 33/6661** (2013.01 - EP US); **H01H 9/102** (2013.01 - EP US)

Cited by
DE102011079969A1; EP1102296A3; DE19859007A1; EP2665077A1; EP0212136A3; DE3447314A1; FR2817655A1; EP0843330A3; DE102007038898B3; DE102005013231B3; US6130394A; DE4015979A1; DE4015979C2; GB2301227A; GB2301227B; DE3412399A1; EP0780867A3; US6624996B2; US7679019B2; WO9522832A1; WO2013014070A1; EP1826791A2; WO9809310A1; WO2009021882A1; EP1826791B1

Designated contracting state (EPC)
BE DE IT NL SE

DOCDB simple family (publication)
EP 0070794 A2 19830126; EP 0070794 A3 19841107; DK 317682 A 19830117; ES 514070 A0 19830401; ES 8305529 A1 19830401; JP S5812230 A 19830124; JP S6314806 B2 19880401; NO 822420 L 19830117; PT 75238 A 19820801; PT 75238 B 19841119; US 4484044 A 19841120

DOCDB simple family (application)
EP 82730094 A 19820705; DK 317682 A 19820715; ES 514070 A 19820716; JP 11115281 A 19810716; NO 822420 A 19820713; PT 7523882 A 19820713; US 39865582 A 19820715