Title (en)
Overload switching device for electrical apparatus

Title (de)
Überlastschalteinrichtung für elektrische Geräte

Title (fr)
Dispositif de commutation de surcharge pour appareils électriques

Publication
EP 0801408 A3 20000726 (DE)

Application
EP 97103619 A 19970305

Priority
DE 19610185 A 19960315

Abstract (en)
[origin: DE19610185C1] The thermal overload device has two switching stages each with fixed contacts 10,11 and a bridging contact 14 held by a spring element 15. In line with the switching stages is a bimetallic element 12 that is heated by a unit 18 coupled into the electrical circuit. At a threshold temperature the bimetallic element inverts and displaces a plunger 16 to open the contacts. The device has a push button cap 26 inside of which is an indicator bulb 19 that has a electorial connections to one pair of contacts 10.11 that connect to the load. The switch may also be manually operated by pressing the push button.

IPC 1-7 (main, further and additional classification)
H01H 37/70; H01H 37/54

IPC 8 full level (invention and additional information)
H01H 37/54 (2006.01); H01H 1/50 (2006.01); H01H 9/16 (2006.01)

CPC (invention and additional information)
H01H 37/5409 (2013.01); H01H 1/504 (2013.01); H01H 9/161 (2013.01)

Citation (search report)
- [YA] CH 244173 A 19460831 - SINGER MFG CO [US]
- [YDA] DE 3802647 A1 19890803 - LECTRA TRADING AG [CH]
- [A] DE 3701240 A1 19870806 - KIENZLER AG G [CH]
- [A] US 3258567 A 19660628 - COLAVECCHIO ROBERT J
- [A] DE 2625120 A1 19771208 - HOFSASS P
- [A] US 2839638 A 19580617 - DAVID EPSTEIN HENRY

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

EPO simple patent family
DE 19610185 C1 19970410; AT 286301 T 20050115; EP 0801408 A2 19971015; EP 0801408 A3 20000726; EP 0801408 B1 20041229

INPADOC legal status

2017-03-15 [REG CH PL] PATENT CEASED

2017-03-05 [REG DE R071] EXPIRY OF RIGHT
- Document : DE 59712140

2016-05-31 [PGFP FR] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : FR
- Payment date : 20160322
- Year of fee payment : 20

2016-04-29 [PGFP CH] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : CH
- Payment date : 20160215
- Year of fee payment : 20

2016-04-29 [PGFP DE] POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
- Ref Country Code : DE
- Payment date : 20160109
- Year of fee payment : 20

2016-03-22 [REG FR PLFP] FEE PAYMENT
- Year of fee payment : 20

2007-12-31 [BERE] BE: LAPSED
- Owner name : *LECTRA TRADING A.G.
- Effective date : 20050331

2005-12-30 [ET] FR: TRANSLATION FILED

2005-12-21 [26N] NO OPPOSITION FILED
- Effective date : 20050930

2005-09-30 [BERE] BE: LAPSED
- Owner name : LECTRA TRADING A.G.
- Effective date : 20050331

2005-07-27 [GBV] GB: EP PATENT (UK) TREATED AS ALWAYS HAVING BEEN VOID IN ACCORDANCE WITH GB SECTION 77(7)/1977
- Effective date : 20041229

2005-06-01 [NLV1] NL: LAPSED OR ANNULLED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT

2005-03-31 [PG25 BE] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : BE
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20050331

2005-03-05 [PG25 AT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : AT
- Free text : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES
- Effective date : 20050305

2005-02-03 [REF] CORRESPONDS TO:
- Document : DE 59712140 P 20050203

2004-12-31 [REG CH EP] ENTRY IN THE NATIONAL PHASE

2004-12-29 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : B1
- Designated State(s) : AT BE CH DE FR GB IT LI NL

2004-12-29 [REG GB FG4D] EUROPEAN PATENT GRANTED
- Free text : NOT ENGLISH

2004-12-29 [PG25 GB] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : GB
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20041229

2004-12-29 [PG25 IT] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : IT
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20041229

2004-12-29 [PG25 NL] LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO
- Ref Country Code : NL
- Free text : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME-LIMIT
- Effective date : 20041229

2004-04-07 [17Q] FIRST EXAMINATION REPORT
- Effective date : 20040219

2000-09-13 [17P] REQUEST FOR EXAMINATION FILED
- Effective date : 20000714

2000-07-26 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : A3
- Designated State(s) : AT BE CH DE FR GB IT LI NL

1997-10-15 [AK] DESIGNATED CONTRACTING STATES:
- Kind Code of Ref Document : A2
- Designated State(s) : AT BE CH DE FR GB IT LI NL