

Title (en)  
ELECTRIC SWITCHING DEVICE

Title (de)  
ELEKTRISCHE SCHALTVORRICHTUNG

Title (fr)  
DISPOSITIF DE COMMUTATION ELECTRIQUE

Publication  
**EP 0901684 A1 19990317 (EN)**

Application  
**EP 97924457 A 19970526**

Priority  
• SE 9700865 W 19970526  
• SE 9602069 A 19960524

Abstract (en)  
[origin: WO9745850A1] An electric switching device for fast closing of a high current comprises one movable contact element (4) and one fixed contact element (5), which form a sliding contact. A spring member (2) operates the first contact element (4). During the closing movement, the first contact element completes an acceleration phase (t1), during which the spring force stored in the spring member (2) by clamping is transformed into kinetic energy of the movable contact element. Then follows a movement phase (t2-t1), during which the movable contact element moves towards the closed position at constant speed. The spring member (2) comprises a freely journaled torsion-spring rod, one end of which is fixed to an operating arm (3) which is freely rotatable between a first support (7) and a second support (8). The contact element (4) is fixed to the second end of the torsion-spring rod, the torsion-spring rod being clamped by rotating the contact element in the opening direction with the operating arm against the first support. The fixed contact element (5) comprises a plurality of contact fingers (14) as well as a plurality of spring fingers (17). The contact fingers are made of a first electrically conducting material with good electrical conductivity. The spring fingers (17) are made of a second conducting material with a high yield point and designed so as to have an essentially higher resonance frequency than the contact fingers. The spring fingers are adapted to rapidly resume a contact position after a deflection excited transversely of the closing direction.

IPC 1-7  
**H01H 31/00**; **H01H 79/00**

IPC 8 full level  
**H01H 1/42** (2006.01)

CPC (source: EP)  
**H01H 1/42** (2013.01); **H01H 79/00** (2013.01)

Citation (search report)  
See references of WO 9745851A1

Designated contracting state (EPC)  
DE FI FR GB IT NL SE

DOCDB simple family (publication)  
**WO 9745850 A1 19971204**; DE 69709346 D1 20020131; DE 69709346 T2 20020822; DE 69719323 D1 20030403; DE 69719323 T2 20040219; EP 0901684 A1 19990317; EP 0901684 B1 20011219; EP 0902955 A1 19990324; EP 0902955 B1 20030226; SE 9602069 D0 19960524; WO 9745851 A1 19971204

DOCDB simple family (application)  
**SE 9700867 W 19970526**; DE 69709346 T 19970526; DE 69719323 T 19970526; EP 97924457 A 19970526; EP 97924458 A 19970526; SE 9602069 A 19960524; SE 9700865 W 19970526