

Title (en)  
ELECTROMAGNET ARRANGEMENT FOR A SWITCH

Title (de)  
ELEKTROMAGNETANORDNUNG FÜR EINEN SCHALTER

Title (fr)  
DISPOSITIF A ELECTROAIMANT POUR INTERRUPTEUR

Publication  
**EP 1417694 A1 20040512 (DE)**

Application  
**EP 02794737 A 20020727**

Priority  
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• EP 0208402 W 20020727

Abstract (en)  
[origin: US6906605B2] An electromagnet system for a switch includes a main magnetic circuit including a magnet yoke and a magnet armature mechanically linked to a contact apparatus. At least one permanent magnet is disposed in the main magnetic circuit for generating a holding force for the magnet armature. A shunt circuit is provided parallel with the main magnetic circuit so that the permanent magnet is a magnetic energy source for the shunt circuit. The shunt circuit includes pole legs and a yoke arc of the magnet yoke. The magnet armature is capable of contacting the pole legs so as to close the shunt circuit. An excitation winding is provided for each of the pole legs for to generating a pull-in force for the magnet armature. The electromagnet system is magnetically dimensioned such that a minimum magnetomotive force of the excitation windings is sufficient for opening the electromagnet system.

IPC 1-7  
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