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(54) Title: MAGNETIC CIRCUIT INTERRUPTER WITH CURRENT LIMITING CAPABILITY

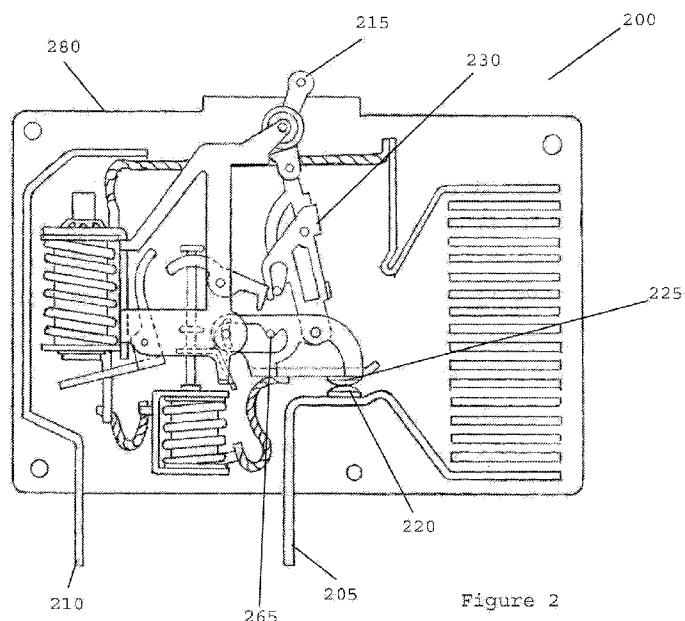


Figure 2

(57) Abstract: A circuit interrupter has a first contact, a second contact, and a trip arm which moves the second contact between a closed position where the second contact is touching the first contact and an open position in which the second contact is spaced apart from the first contact. A first trip mechanism has a first solenoid, a first overcurrent sensor, and a first arm. A second trip mechanism has a second solenoid, a second overcurrent sensor, and a second arm. The first trip mechanism activates the first arm after a first threshold amount of time which actuates the trip arm when the first overcurrent sensor detects a first threshold level. The second trip mechanism activates the second arm after a second threshold amount of time which actuates the trip arm when the second overcurrent sensor detects a second threshold level, the second threshold level being different than the first.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H01H 3/00 (2012.01)

USPC - 200/400

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - H01H 3/00, 5/00, 47/00 (2012.01)

USPC - 200/400; 218/154; 361/160, 166, 167, 170

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

MicroPatent, Google Patents, Google Scholar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 5,369,542 A (LEONE et al) 29 November 1994 (29.11.1994) entire document	23-25, 28-30
Y	US 2003/0034864 A1 (CASTONGUAY et al) 20 February 2003 (20.02.2003) entire document	1-22, 26, 27, 31, 32
Y	US 2006/0250102 A1 (PAYNE) 09 November 2006 (09.11.2006) entire document	1-22
Y	US 2006/0250102 A1 (PAYNE) 09 November 2006 (09.11.2006) entire document	4, 5, 9, 10, 15, 16, 20, 21, 26, 27, 31, 32
Y	WEAVER et al. Arc Root Mobility on Piezoelectrically Actuated Contacts in Miniature Circuit Breakers. IEEE Transactions on Components and Packaging Technologies, Vol. 28, No. 4, December 2005 [retrieved on 2012-07-11]. Retrieved from Internet: <URL: http://eprints.soton.ac.uk/23874/1/23874.pdf > entire document	6, 11, 22
Y	US 4,710,739 A (HEYNE et al) 01 December 1987 (01.12.1987) entire document	7-11

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

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