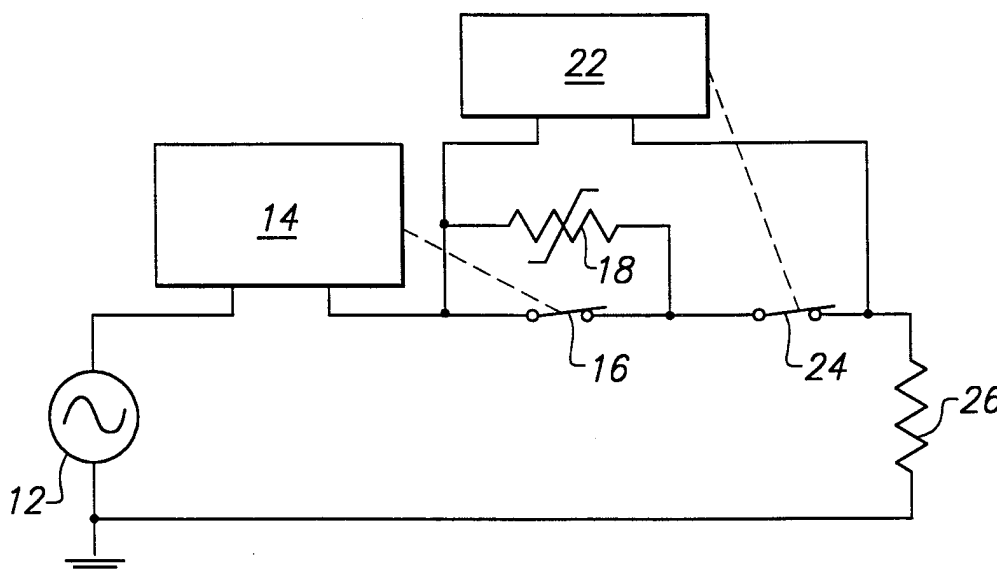




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(21) International Application Number: PCT/US98/11123 (22) International Filing Date: 2 June 1998 (02.06.98) (30) Priority Data: 08/867,682 2 June 1997 (02.06.97) US 08/958,808 28 October 1997 (28.10.97) US (71) Applicant: RAYCHEM CORPORATION [US/US]; 300 Constitution Drive, Mail Stop 120/6600, Menlo Park, CA 94025-1164 (US). (72) Inventors: WYNN, Craig; 4207 Manuela Avenue, Palo Alto, CA 94306 (US). NICKOLS, St. Elmo, III; 222 Nicholson Avenue, Los Gatos, CA 95030 (US). (74) Agents: RICHARDSON, Timothy, H., P. et al.; Raychem Corporation, Intellectual Property Law Dept., 300 Constitution Drive, Mail Stop 120/6600, Menlo Park, CA 94025-1164 (US).		(81) Designated States: JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 1 April 1999 (01.04.99)

(54) Title: OVERCURRENT PROTECTION CIRCUIT



(57) Abstract

Circuit protection systems employing arrangements of PTC devices and mechanical switches. The PTC device is not involved in the circuit until a fault is sensed. In one embodiment, a current sensing relay senses an overcurrent and directs the current to the PTC device. As the voltage across the PTC device increases, a parallel arrangement of voltage sensing relays completes the operation of the protection system, and disconnects the load until the protection system is reset. The protection system may be reset manually or remotely.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/11123

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 H02H3/02 H02H9/02

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 6 H02H H01H

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 practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97 10637 A (RAYCHEM CORP) 20 March 1997 cited in the application see abstract	1
A	WO 97 10609 A (RAYCHEM CORP) 20 March 1997 see abstract	1

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

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9710637 A	20-03-1997	US 5689395 A EP 0850505 A	18-11-1997 01-07-1998
WO 9710609 A	20-03-1997	US 5737160 A EP 0850486 A	07-04-1998 01-07-1998