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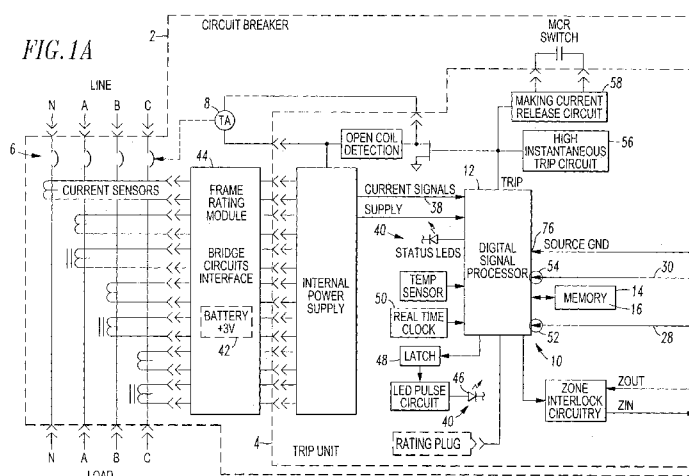
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(54) Title: TRIP UNIT INCLUDING SEPARABLE COMPONENT TO SAVE RESTORE SETTINGS, AND CIRCUIT BREAKER INCLUDING THE SAME



(57) Abstract: A circuit breaker includes separable contacts, an operating mechanism to open and close the contacts, and a trip unit cooperating with the operating mechanism to trip open the contacts. The trip unit includes a first component having a processor and a first memory storing a first set of a plurality of trip unit settings, and a second component of the trip unit. The second component is separable from the first component or the trip unit, and includes a second memory storing a second set of a plurality of trip unit settings. The second component saves the first set of the plurality of trip unit settings as the second set of the plurality of trip unit settings in the second memory, and restores the second set of the plurality of trip unit settings in the first memory of the first component or of another first component of another trip unit.

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2012/000939

A. CLASSIFICATION OF SUBJECT MATTER

INV. H02H3/02 H02H7/22 H02H3/00
ADD.

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)
H02H

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)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 943 201 A (WALKER CHRISTOPHER G [US] ET AL) 24 August 1999 (1999-08-24)	1,2, 11-14,21
Y	column 3, line 11 - column 5, line 40	3-10, 15-20
X	----- EP 1 294 068 A2 (GEN ELECTRIC [US]) 19 March 2003 (2003-03-19)	1,2,21
Y	paragraphs [0007], [0008] paragraph [0011] - paragraph [0015]	3-10, 15-20
Y	----- US 2003/193767 A1 (VICENTE NATANIEL B [US] ET AL) 16 October 2003 (2003-10-16)	3-10, 15-20
	paragraphs [0013], [0014]	
A	----- US 2005/057870 A1 (STELLATO FLAVIANO [CA] ET AL) 17 March 2005 (2005-03-17)	1-21
	paragraph [0017] - paragraph [0025] paragraph [0062] - paragraph [0077]	



Further documents are listed in the continuation of Box C.



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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5943201	A	24-08-1999	NONE
EP 1294068	A2	19-03-2003	EP 1294068 A2 19-03-2003
			US 2003048589 A1 13-03-2003
			US 2004066595 A1 08-04-2004
US 2003193767	A1	16-10-2003	NONE
US 2005057870	A1	17-03-2005	NONE