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(54) Title: ELECTRICAL DEVICE FOR LOW-VOLTAGE APPLICATIONS

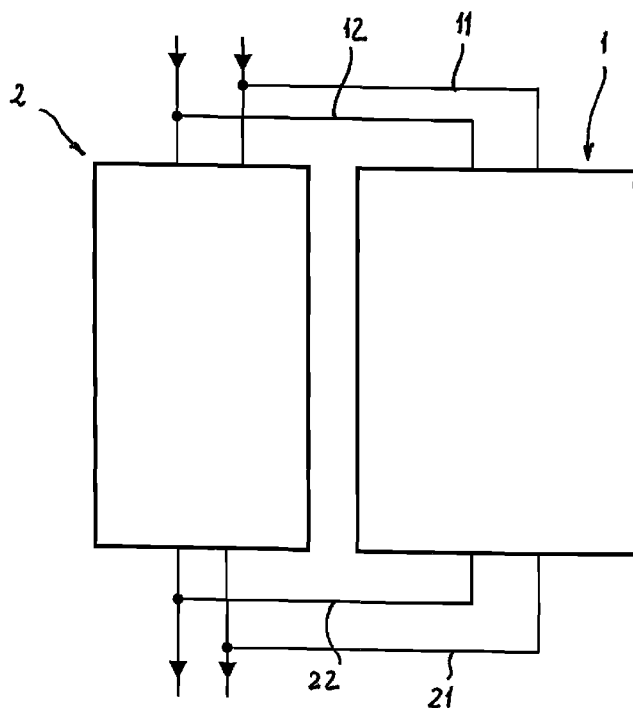


Fig. 1

(57) Abstract: A low-voltage electrical device for controlling a system and automatically reclosing a residual current circuit-breaker associated therewith, comprising: first and second means for connecting the device to the system; a device control unit; first means for controlling the system, operatively connected to the control unit and designed to be operatively connected to the system downstream from the circuit-breaker; second means for controlling the status of said circuit-breaker, operatively connected to the control unit and designed to be operatively connected to the circuit-breaker; actuating means governed by the control unit; resetting means operatively connected to the actuating means and designed to be operatively connected to the circuit-breaker; mechanical means for enabling the device suitable for being operatively associated with the circuit-breaker; first automatic means for enabling the first means for controlling the system, governed by the control unit; second automatic means for enabling the actuating means, governed by the control unit.

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B. FIELDS SEARCHED

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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 practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 744 428 A (BTICINO SPA [IT]) 17 January 2007 (2007-01-17) paragraphs [0001], [0003], [0006], [0020] - [0029], [0033], [0043] - [0049], [0052], [0059] - [0063], [0071]; figures 1,2,4,7,8,11-13	1,4-8,13
Y	paragraph [0053]	2,3
Y	paragraph [0010]	9-12,14
Y	EP 1 562 213 A (GEWISS SPA [IT]) 10 August 2005 (2005-08-10) paragraphs [0022] - [0024] paragraphs [0001], [0005], [0007], [0012] - [0021], [0025] - [0031]; figure 1	2,3, 9-12,14
A	EP 1 569 314 A (GEWISS SPA [IT]) 31 August 2005 (2005-08-31) the whole document	1



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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1744428	A	17-01-2007	NONE	
EP 1562213	A	10-08-2005	AT 359594 T DE 602004005811 T2 ES 2280927 T3	15-05-2007 16-08-2007 16-09-2007
EP 1569314	A	31-08-2005	AT 371980 T CN 1950982 A DE 602004008573 T2 WO 2005086310 A1 ES 2290657 T3 RU 2323511 C1	15-09-2007 18-04-2007 21-05-2008 15-09-2005 16-02-2008 27-04-2008