(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(10) International Publication Number WO 2012/141835 A3

(43) International Publication Date 18 October 2012 (18.10.2012)

(51) International Patent Classification: H02H 1/00 (2006.01) H02H 7/26 (2006.01)

(21) International Application Number:

PCT/US2012/029028

(22) International Filing Date:

14 March 2012 (14.03.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/085,603

13 April 2011 (13.04.2011)

US

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- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

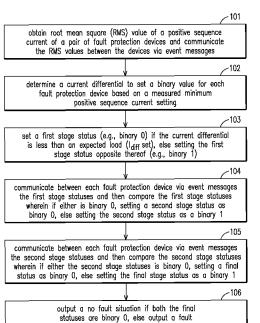
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR PROGRAMMING AND IMPLEMENTING AUTOMATED FAULT ISOLATION AND RESTORATION USING SEQUENTIAL LOGIC



(57) Abstract: A method and system for programming and implementing automated fault isolation and restoration of high-speed fault detection of circuits in power distribution networks using sequential logic and peer-to-peer communication is provided. High-speed fault detection of circuits in power distribution networks uses protective relay devices (14) segmenting a distribution line (11) having Intelligent Electronic Devices (IED) (22) associated with switching devices (20) communicating peer-to-peer via a communication system (30) to provide fast and accurate fault location information in distribution systems with sequential logic



(88) Date of publication of the international search report: 20 December 2012

INTERNATIONAL SEARCH REPORT

International application No PCT/US2012/029028

A. CLASSIFICATION OF SUBJECT MATTER H02H7/26 INV. H02H1/00 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, IBM-TDB, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Category' Citation of document, with indication, where appropriate, of the relevant passages EP 0 315 983 A1 (ASEA BROWN BOVERI [SE]) 1 - 20Χ 17 May 1989 (1989-05-17) page 7, line 55 - page 9, line 6; figure Α US 2002/116092 A1 (HAMAMATSU KOICHI [JP] 1-20 ET AL) 22 August 2002 (2002-08-22) paragraph [0081] - paragraph [0087]; figure 1 EP 0 316 203 A2 (GEN ELECTRIC [US]) 17 May 1989 (1989-05-17) 1-20 Α column 3, line 11 - column 5, line 30; figure 1 US 5 773 980 A (YANG LIFENG [US]) Α 1-20 30 June 1998 (1998-06-30) the whole document X See patent family annex. 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 "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be special reason (as specified) considered to involve an inventive step when the document is combined with one or more other such documents, such combination "O" document referring to an oral disclosure, use, exhibition or other being obvious to a person skilled in the art "P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 19 October 2012 05/11/2012 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016 Lindquist, Jim

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