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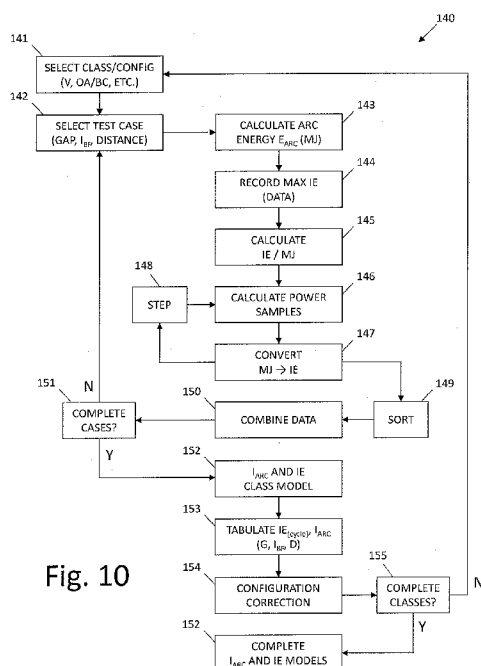
(54) **Title:** SYSTEMS AND METHODS FOR ARC-FLASH HAZARD ASSESSMENT

Fig. 10

(57) **Abstract:** An arc flash hazard assessment method includes storing electrical equipment data in memory, defining an arc flash model function based on the data, and estimating the model function based on a weighted average of interpolated and extrapolated values. The electrical equipment data may include an operating voltage, a fault current, and a clearing time. The model function is defined for at least three reference voltages V_1 , V_2 and V_3 , with the interpolated value at operating voltage V , between voltages V_1 and V_2 , and the extrapolated value from reference voltages V_2 and V_3 . At the arc flash protection boundary, the estimated model function has a predefined incident energy value of 1.2 cal/cm² (or about 5.02 J/cm²), or less.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US14/15761

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F 19/00, 17/00; G01R 21/00 (2014.01)

CPC - G06F 2217/78, 17/5036, 2217/16

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) Classification(s): G06F 19/00, 17/00; G01R 21/00 (2014.01)

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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 (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); ProQuest; IEEE; Google/Google Scholar

KEYWORDS: Computer, Processor, Memory, Model, Assessment, Algorithm, Code, Reference, Arc, Energy, Function, Estimate, Electrode

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2008/0036472 A1 (COLLINS, JR, E et al.) February 14, 2008; abstract; figures 9, 11A, 18-20, 27-29, 31-32; paragraph [0035-0039, 0130-0132, 0138-0140, 0183-0186, 0195-0198, 0239, 0273, 0285]	1-40
A	WO 2008/003088 A2 (NASLE, A et al.) January 3, 2008; entire document	1-40
A	WO 2009/049221 A1 (RADIBRATOVIC, B et al.) April 16, 2009; entire document	1-40

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

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