Title (en)

METHOD FOR DETECTING SATURATION IN A CURRENT TRANSFORMER

Title (de)

VERFAHREN ZUR DETEKTION VON SÄTTIGUNG EINES STROMWANDLERS

Title (fr)

PROCEDE DE DETECTION DE SATURATION DANS UN TRANSFORMATEUR DE COUORANT

Publication

EP 1470625 A1 20041027 (FR)

Application

EP 03709899 A 20030123

Priority

- FR 0300220 W 20030123
- FR 0201043 A 20020129

Abstract (en)

[origin: FR2835319A1] The method is based on an association of at least two saturation criteria enabling detection of a saturation phase when said criteria are met simultaneously. The invention is characterized in that a first saturation criterion (C<sb>e</sb> .<sb> sat</sb>) takes into account the calculation of an instantaneous prediction error ((Y<sb>k</sb>)) as a function of the differential between the measured secondary current (i<sb>s</sb>) and the secondary current (I<sb>s</sb>) predicted with the aid of a mathematical model, and in that a second saturation criterion (C<SB>F</SB>.<sb>sat</sb>) takes into account the instantaneous algebraic flux (<SP>F</SP>.<sb>mes</sb>) calculated by integration of the sampled secondary current (Y<sb>k</sb>), comparing said algebraic flux to a positive threshold (S+, S'+) and to a negative threshold (S-, S'-). Said comparison is initialized by exaggerating the probabilities of meeting the second saturation criterion at the beginning of the measurement, more particularly by an over-estimation (F_rem_haut) of the absolute value of the remanent flux of the transformer.

IPC 1-7

H02H 1/04

IPC 8 full level

G01R 15/18 (2006.01); **H02H 1/04** (2006.01); **H02H 7/04** (2006.01); H02H 6/00 (2006.01)

CPC (source: EP US)

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DOCDB simple family (publication)

FR 2835319 A1 20030801; **FR 2835319 B1 20040312**; BR 0302851 A 20040302; CA 2474052 A1 20030807; EP 1470625 A1 20041027; JP 2005516229 A 20050602; US 2005140352 A1 20050630; WO 03065533 A1 20030807

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