

Title (en)

METHOD OF DETERMINING AN EARTH-FAULT CURRENT

Title (de)

VERFAHREN ZUR ERFASSUNG EINES ERDSCHLUSSSTROMES

Title (fr)

PROCEDE DE DETERMINATION D'UN COURANT DE DEFAUT A LA TERRE

Publication

EP 0809808 A1 19971203 (DE)

Application

EP 96902869 A 19960209

Priority

- DE 9600255 W 19960209
- DE 19506860 A 19950215

Abstract (en)

[origin: DE19506860C1] A method of determining the earth-fault current (I_g) flowing in a multi-phase circuit (L1, L2, L3, N) is based on the use of standard current transformers with iron cores (W1, W2, W3, WN) for the phase conductors (L1, L2, L3) and neutral conductor (N). Allowance is made for the current-dependent linearity error ($F(I)$) of the current transformers (W1, W2, W3, WN) by subtraction of the product of the highest phase-current and associated error ($F \cdot I_{\max}$) from the vectorial sum (ΣI) of the currents. This results in a one-sided position of the tolerance band of the measured earth-fault current and prevents spurious tripping.

IPC 1-7

G01R 31/04

IPC 8 full level

G01R 31/02 (2006.01); **G01R 19/00** (2006.01); **H02H 1/04** (2006.01); **H02H 3/347** (2006.01)

CPC (source: EP US)

G01R 19/0092 (2013.01 - EP US); **H02H 1/046** (2013.01 - EP US); **H02H 3/347** (2013.01 - EP US)

Citation (search report)

See references of WO 9625671A1

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

DE 19506860 C1 19960808; EP 0809808 A1 19971203; JP H10513567 A 19981222; US 6005393 A 19991221; WO 9625671 A1 19960822

DOCDB simple family (application)

DE 19506860 A 19950215; DE 9600255 W 19960209; EP 96902869 A 19960209; JP 52458196 A 19960209; US 89419297 A 19971218