

Title (en)

SYSTEM FOR MONITORING CIRCUIT BREAKER OPERATIONS AND ALERTING NEED OF PREVENTATIVE MAINTENANCE.

Title (de)

ÜBERWACHUNGSSYSTEM FÜR SICHERKEITSAUTOMATEN UND ALARMEINRICHTUNG ZUR VORBEUGENDEN WARTUNG.

Title (fr)

SYSTEME DE SURVEILLANCE DU FONCTIONNEMENT D'UN COUPE-CIRCUIT ET SYSTEME D'ALARME PREVENANT D'UN BESOIN DE MAINTENANCE A TITRE PREVENTIF.

Publication

EP 0594830 A4 19941123 (EN)

Application

EP 93911207 A 19930510

Priority

- US 9304410 W 19930510
- US 88190392 A 19920512

Abstract (en)

[origin: WO9323760A1] A system which automatically monitors critical circuit breaker (C) operating parameters during each operation of the circuit breaker. Monitored parameters include the currents being interrupted, trip coil voltage and current, position of the contacts, initiation of closing, over travel of the contact mechanism on closing, contact opening and closing point and pressure in SF6 circuit breakers. These parameters are sampled and stored in memory (M) in the circuit breaker. The sample memory is connected to a local microcomputer (M) which is in communication with a host computer (H). Upon receipt of a command from the host computer (H) a local microcomputer in the circuit breaker (C) transmits the sample data to the host computer (H) for storage and analysis. The host computer (H) compares the stored data for each operation with acceptable operation curves. If the data indicates operation outside of various acceptable ranges, the maintenance department is automatically notified of the potential problem, to allow preventative maintenance and further testing, if desired.

IPC 1-7

G01R 31/02; **G01R 31/32**

IPC 8 full level

G01R 31/327 (2006.01); **G01R 31/333** (2006.01); **H01H 11/00** (2006.01); **H01H 1/00** (2006.01)

CPC (source: EP)

G01R 31/3275 (2013.01); **G01R 31/333** (2013.01); **H01H 11/0062** (2013.01); **H01H 1/0015** (2013.01)

Citation (search report)

- [XAY] EP 0193732 A1 19860910 - LICENTIA GMBH [DE]
- [A] WO 8912345 A1 19891214 - SOUTH EAST QUEENSLAND ELECT [AU]
- [Y] JONES ET AL.: "CIRCUIT-BREAKER MONITORING...", PAPER 13-09", INTERNATIONAL CONFERENCE ON LARGE HIGH VOLTAGE ELECTRIC SYSTEMS, CIGRE, 3 September 1988 (1988-09-03), PARIS
- [A] BUURMAN ET AL.: "MICROPROCESSOR-BASED CONTROL AND PROTECTION SYSTEM", SIEMENS POWER ENGINEERING & AUTOMATION, vol. 7, no. 3, June 1985 (1985-06-01), BERLIN DE, pages 164 - 168
- See references of WO 9323760A1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9323760 A1 19931125; AU 4242293 A 19931213; AU 665433 B2 19960104; CA 2113193 A1 19931125; EP 0594830 A1 19940504; EP 0594830 A4 19941123; MX 9302782 A 19940531

DOCDB simple family (application)

US 9304410 W 19930510; AU 4242293 A 19930510; CA 2113193 A 19930510; EP 93911207 A 19930510; MX 9302782 A 19930512