

Title (en)

Arrangement, substation, operating method and use of a grounding switch for protecting an electrical circuit against short-line faults

Title (de)

Anordnung, Unterstation, Betriebsverfahren und Verwendung von einem Erdungsschalter zum Schutz einer elektrischen Schaltung gegen Kurzleitungsfehler

Title (fr)

Agencement, sous-station, procédé de fonctionnement et utilisation d'un commutateur de mise à la terre pour la protection d'un circuit électrique contre des défauts de court-circuit en ligne

Publication

**EP 2249363 A1 20101110 (EN)**

Application

**EP 09159681 A 20090507**

Priority

EP 09159681 A 20090507

Abstract (en)

The invention relates to an arrangement (1) for protecting an electrical circuit from damage caused by a short-line fault, comprising a circuit breaker (2) that connects a generator or busbar (4) with a line (5), wherein a grounding switch (3) is provided that connects the line (5) to ground. The invention further relates to a method for operating such an arrangement that comprises the steps of initially setting the circuit breaker (2) into a closed state and the grounding switch (3) into an open state, and upon detection of a short-line fault opening of the circuit breaker (2) and closing of the grounding switch (3). The invention still further relates to the use of a grounding switch (3) together with a circuit breaker (2) to protect an electrical circuit from damage caused by a short-line fault by suppressing transient recovery voltages.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

- US 7333316 B1 20080219 - NORRIS RICHARD G [US]
- US 5821496 A 19981013 - MIZUFUNE EISAKU [JP], et al
- WO 2007068686 A1 20070621 - SIEMENS AG [DE], et al
- DE 3130643 A1 19830224 - SLAMECKA ERNST
- JP H03190021 A 19910820 - TOSHIBA CORP
- JP H03190028 A 19910820 - TOSHIBA CORP

Citation (search report)

- [X] DE 1184837 B 19650107 - SACHSENWERK LICHT & KRAFT AG
- [XY] US 2005103514 A1 20050519 - UTSUMI TOMOAKI [JP], et al
- [A] WO 9013932 A1 19901115 - SIEMENS AG [DE]
- [Y] DE 3901180 A1 19900719 - PLASMATECH GMBH ELEKTROTECHNIS [DE]
- [Y] US 3192440 A 19650629 - PAUL BALTENSPERGER
- [A] EP 1638124 A1 20060322 - DE BIASI GIOVANNI [IT]
- [XYI] US 2009045171 A1 20090219 - MONTICH EDUARDO [AR]

Cited by

CN112945528A; WO2014117392A1

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