Title (en)

FEEDER LINE FAULT RESPONSE USING DIRECT CURRENT INTERCONNECTION SYSTEM

Title (de)

REAKTION AUF VERSORGUNGSLEITUNGSFEHLER UNTER VERWENDUNG EINES GLEICHSTROMVERBINDUNGSSYSTEMS

Title (fr)

RÉPONSE À UN DÉFAUT DE LIGNE D'ALIMENTATION À L'AIDE D'UN SYSTÈME D'INTERCONNEXION À COURANT CONTINU

Publication

EP 3949055 A4 20221228 (EN)

Application

EP 20778520 A 20200327

Priority

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- US 2020025157 W 20200327

Abstract (en)

[origin: WO2020198565A1] The present disclosure relates generally to medium voltage alternating current (MV AC) distribution networks. Isolating a fault in a feeder line of an MV AC distribution network may cause a healthy portion of a feeder line to be disconnected from all power sources. Network control systems may be able to reconnect the healthy portion to another feeder line using controllable switches such as tie switching devices coupled to the end of each feeder line. Existing MV AC distribution networks suffer from a number of shortcomings and disadvantages. There remain unmet needs including increasing reconfigurability following feeder line fault response, preventing subsequent overloads after network reconfigurations, and reducing network downtime for healthy feeder line portions. For instance, conventional distribution networks do not receive power from multiple connected feeder lines after a fault response, risking an overload in a single newly connected feeder line and reducing power transfer ability. In view of these and other shortcomings in the art, there is a significant need for the unique apparatuses, methods, systems and techniques disclosed herein.

IPC 8 full level

H02H 3/10 (2006.01); **H02H 3/38** (2006.01); **H02H 3/44** (2006.01); **H02H 7/26** (2006.01); **H02J 3/00** (2006.01)

CPC (source: EP)

H02H 3/36 (2013.01); **H02H 7/262** (2013.01); **H02J 3/00125** (2020.01); **H02J 3/0073** (2020.01); **H02J 3/36** (2013.01); **H02J 13/0004** (2020.01); H02J 2203/10 (2020.01)

Citation (search report)

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- See also references of WO 2020198565A1

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