

Title (en)
RECONSTRUCTION OF A TOPOLOGY OF AN ELECTRICAL DISTRIBUTION NETWORK

Title (de)
REKONSTRUKTION EINER TOPOLOGIE EINES STROMVERTEILUNGSNETZES

Title (fr)
RECONSTRUCTION D'UNE TOPOLOGIE D'UN RÉSEAU DE DISTRIBUTION ÉLECTRIQUE

Publication
EP 3867654 A1 20210825 (FR)

Application
EP 19872450 A 20191010

Priority
• CA 3020950 A 20181016
• CA 2019051446 W 20191010

Abstract (en)
[origin: CA3113153A1] The disclosed method reconstructs a topology of an electrical distribution network. An ohmic matrix model of the network is generated according to consumption measurements provided by smart meters in the network. A tree table of nodes to which the meters are connected is defined. A branch under exploration is defined in the table and the nodes of the branch satisfying pre-established relationships are entered in the table according to connection values derived from resistance levels in the matrix model. One of the relationships determines a junction of the branch under exploration with an already explored branch that can be linked to a root to which a distribution transformer of the network is connected. The topology is reconstructed by proceeding iteratively in sequences of decreasing values derived from the resistance levels.

IPC 8 full level
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CPC (source: EP US)
G06F 30/18 (2020.01 - US); **H02J 13/00001** (2020.01 - EP); **H02J 13/00002** (2020.01 - US); **H04Q 9/00** (2013.01 - EP); **G01R 19/2513** (2013.01 - EP); **G06F 2111/10** (2020.01 - US); **G06F 2113/04** (2020.01 - US); **H02H 7/28** (2013.01 - EP); **H02J 2203/10** (2020.01 - EP); **H02J 2203/20** (2020.01 - US); **H04Q 2209/60** (2013.01 - EP); **Y04S 10/40** (2013.01 - EP)

Cited by
CN114336638A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

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CA 3020950 A 20181016; CA 2019051446 W 20191010; CA 3113153 A 20191010; EP 19872450 A 20191010; US 201917280204 A 20191010