

Title (en)

METHOD AND DEVICE FOR DETERMINING THE GRID STATE OF A LOW-VOLTAGE GRID OF AN ENERGY SUPPLY SYSTEM

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DES NETZZUSTANDES EINES NIEDERSpannungsNETZES EINES ENERGIEVERSORGUNGSSYSTEMS

Title (fr)

PROCÉDÉ ET DISPOSITIF PERMETTANT DE DÉTERMINER L'ÉTAT D'UN RÉSEAU BASSE TENSION D'UN SYSTÈME D'ALIMENTATION EN ÉNERGIE

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Application

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Abstract (en)

[origin: WO2020064331A1] The invention relates to a method for determining the grid state of a low-voltage grid of an energy supply system (2), comprising a gateway (3) and a monitoring device (4). The energy supply system (2) has grid lines (311-319) with respective smart meters (101-109), which form a grid topology of the low-voltage grid (1). Communication paths are formed between the smart meters (101-109) and the gateway (3) by applying powerline communication technology to the grid lines (311-319), said paths together forming a communication grid with a communication topology, and communication properties, comprising routing information (RI) which describes the communication path between the gateway (3) and the respective smart meter (101-109), are ascertained as at least one communication parameter by means of the respective smart meter (101-109), the communication topology being determined from said communication parameter. The grid state of the low-voltage grid (1) is determined from a comparison of the grid topology with the communication topology by means of the monitoring device (4), wherein a change in the structure of the communication topology with respect to the structure of the grid topology is analyzed, and in the event of a change in the structure of the communication topology, a comparison is carried out with weather data and is taken into consideration when determining the grid state.

IPC 8 full level

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Citation (search report)

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