

Title (en)

DISTRIBUTION AUTOMATION SYSTEM USING MEDIUM AND LOW VOLTAGE DISTRIBUTION POWER LINES AS TWO-WAY DATA TRANSMISSION MEDIA

Title (de)

VERTEILUNGAUTOMATISIERUNGSSYSTEM DURCH MITTEL VON NIEDERSPANNUNGSNETZE ALS ZWEIWEGBDATENÜBERTRAGUNGSMITTEL

Title (fr)

SYSTEME D'AUTOMATISATION DE LA DISTRIBUTION UTILISANT DES LIGNES DE FORCE A MOYENNE ET FAIBLE TENSION COMME MOYENS DE TRANSMISSION BILATERALE DE DONNEES

Publication

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Application

EP 94929621 A 19940928

Priority

- IT 9400158 W 19940928
- IT RM930660 A 19930929

Abstract (en)

[origin: WO9509473A2] A system for the remote control of the electricity distribution network and the telereading of the electricity, gas, water and other services meters of the customers connected to the same network. More specifically a system which uses centralized and distributed intelligence to manage the information and carrier currents at relatively high frequencies over the wires of the electricity networks to transmit the information. The carrier current system is implemented according to an original method, which, unlike the traditional one, does not utilize high frequency traps and by passes, at the network nodes. This method allows the use of the power distribution network without the expensive changes required by the traditional solution. This result is obtained by forecasting the messages over the Medium Voltage (MV) and the Low Voltage (LV) radial networks as they are configured for the distribution of the electricity and by properly addressing the various substations and the customer meters. Because the MV and LV electricity network configuration is subject to change as a consequence of intentionally made switching operations or as a consequence of automatic tripping of the switchgears following a fault, the method of properly addressing and routing the messages to their final destinations requires that the state of the network is very frequently updated. This function is performed by the system subject of this invention and the updating of the state of the network, a very important information in itself, has to be seen as an added value for the system.

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H02J 13/00; G01R 21/133

IPC 8 full level

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