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Ways to improve the speed and reliability of the transmission of digital information through the channels NBPLC grids 6-35 kV

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“Experience is what you get when you didn’t get what you wanted.”

In article the analysis will be given the modern transmission methods of the data with reference to NBPLC for an MV and LV grids.

Development and acceptance of standard G3 for NBPLC ended in 2012. It is necessary to mark lacks G3 which are especially noticeable at usage in the Russian distributive networks both LV, and MV.

We pay attention on some from them.

For networks of a low voltage it, at first, absence of possibility of a configuration of a network on a part of a range for preventing of cross impact of adjacent domains. Secondly, presence of difficult sections of a network, from the point of view of signal attenuation, demands setting of rules of relaying which differ from automatic lining of topology etc.

For MV grid G3 does not approach on all parameters and development of absolutely other methods is required.

For the last period from the moment of appearance G3 there were publications in which results of researches of various variants of modulation and coding of broadband signals are described. These researches are connected to creation of theoretical basis for fifth generation of networks of a broadband radio access (5G), but have a direct bearing on technologies PLC. Application of various methods of not orthogonal modulation allowing considerably to increase data transmission rate became result of these researches. Besides, application of various methods of multiple access to the transmitting environment allows to lower losses which are characteristic for CSMA/CD, and to lower the delay of information transmission that is necessary for signal transmission SCADA.