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METHOD OF LIMITED VERSION OF OPTIONS FOR THE PROBLEMS OF INTERNAL SYMMETRY OF SINGLE-PHASE ELECTRIC DEVICES

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Abstract

A method has been developed that can be common for solving such problems of internal symmetry of single-phase electric receivers: their optimal connection to a three-phase three-wire network node; the same, but taking into account the change in their parameters over time; determination of the optimal displacement of the load diagrams of electric receivers for the purpose of symmetrization mode; the same, and their optimal connection to the network. The essence of the method is to process one-third of all possible options for connecting single-phase loads to the node of the electrical network, according to the algorithm of the corresponding task. The solution of such problems includes: compiling a matrix of control vectors and a matrix of values of negative sequence currents, which are generated by single-phase loads. The method ensures finding solutions to which the global minimum of criterial functions corresponds. References 8, figures 5, tables 3.

Key words: load balancing, voltage asymmetry, reciprocal suction current, optimal solution.

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