

## **Defining the instantaneous parameters of the electric mode with an increased sampling rate.**

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The paper presents the development of an algorithm for express estimation of the electric mode parameters with the delay of less than one period of industrial frequency. The study of the method for setting the basis frequency when presenting the signal by the Euler method was completed, two algorithms were developed for deriving the synchronous frequency in a three-phase network from voltage signals, and the scope of the algorithm is determined. Three types of data were used for testing: computationally simulated transient, electromechanical and steady state data from the electrodynamic simulator of JSC «STC UPS» and steady state data obtained from 500 and 220 kV grids. As a result, the values of the delays in defining the mode parameters by the proposed algorithm for each of the data types were obtained.

*Keywords: PMU, estimation of electric mode parameters, Euler method.*