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VARIATIONAL METHOD OF MEASURING ANGULAR PHASE DIFFERENCE

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Abstract

Measurement of the phase difference of the two signals has found wide application in various fields of science and technology. However, the existing methods of measurement do not fully meet modern requirements - high speed and high accuracy of phase shift measurement. In this paper we consider a new method for measuring the phase difference, based on the deterministic increment of the initial phase of one of the signals, which makes it possible to achieve high speed and small measurement error, analytical dependencies of the method are derived. The method is based on digital signal processing. References 10, figures 2, table 1.

Key words: AC current, amplitude, phase difference, speed of measurement, accuracy,

variation, uncertainty, digitization, digital filtration, weight window.

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