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## HARMONIC COMPONENTS OF ELECTROMAGNETIC VIBRATOR CURRENT

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### Author

**O.O. Chernov\***

National University of Shipbuilding named by admiral Makarov,  
av. Geroev Stalingrada, 9, Nikolaev, 54025,  
e-mail: [alextochernov@gmail.com](mailto:alextochernov@gmail.com)

\* ORCID ID : <http://orcid.org/0000-0003-1670-8276>

### Abstract

*The aim of the work is to study the current harmonic components of electromagnetic vibrator to make possible of its frequency control by using only current sensor signal. It was found analytically, that the current spectrum has all the odd harmonics and has not any even ones. Experimental investigations have also been performed. It was found, that the first and the third current harmonics have the highest amplitude. The phase difference between them is a monotonically decreasing function of frequency in the resonance region, so this property can be used to control the frequency of the electromagnetic vibratory drive. References 10, figures 2.*

**Key words:** electromagnetic vibrator, current harmonic components.

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