DOI: https://doi.org/10.15407/ techned2017.01.003

USE OF POWER METHOD FOR IDENTIFICATION OF NONLINEARITY PARAMETERS

Journal	Tekhnichna elektrodynamika
Publisher	Institute of Electrodynamics National Academy of Science of Ukraine
ISSN	1607-7970 (print), 2218-1903 (online)
Issue	No 1, 2017 (January/February)
Pages	3 – 9

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Abstract

Procedure of calculation of nonlinearity parameters by power method based on equations of balance of the source and consumer instantaneous powers components according to each separate harmonic is proposed. It is demonstrated that such an approach makes it possible to obtain the required number of equations for determination of the nonlinearity parameters. The method is verified using the example of calculation of parameters of a simple electric circuit with a nonlinear inductance. References 12, figures 6.

Key words: nonlinear element, instantaneous power, power method, equations of instantaneous power components balance.

Received: 11.04.2016
Accepted: 16.12.2016
Published: 19.01.2017

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