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DC/DC CONVERTER WITH METERED ENERGY EXTRACTION AND TRANSMISSION

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Abstract

Described is a new resonant voltage converter of buck/boost type with metered extraction of energy from the direct (rectified) current network and its metered transfer to the load. Electromagnetic processes in the input and output circuits of the converter are investigated taking into account the energy losses in its transistors, diodes and electromagnetic elements. Dependences between its parameters are found, at which its working capacity is ensured with minimal static and dynamic losses. The method of its calculation, aimed at achieving the maximum efficiency, is proposed. References 6, figures 7.

Key words: resonant converter, power transmitter, secondary power supply.

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