



Power engineering. ¹Golubev V.V. Pulse conversion of AC voltage. – K.: Nauk. dumka, 2014. – 248 p.
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In the monograph, the methods of generalized analysis and calculation of instantaneous and operating values of currents and voltages on the elements of branched circuits of the loads of first, second and higher orders, energy characteristics of key and transformer-key executive structures with high-frequency impulse commutation, are reviewed. General analytical expressions for the description and calculation of currents and voltages in the circuits, as well as energy characteristics of a whole class of two-terminal networks that simulate real load, are given. Simple and universal formula for calculating the input and output electric filters are obtained. Known circuits are described, and new circuits of thyristor and transistor converters of AC voltage with free circulation of energy between network and load, are developed along with the principles of their management. Specific examples of analog and digital control systems construction are given.