

Invention relates to electrical engineering and can be used in power conversion equipment and electronics as a three-level voltage inverter. The invention consists of positive and negative terminals for connecting a DC voltage source, a bridge on first, second, and third legs each having two series-connected upper and lower transistor-diode switches. The upper switches of the legs are connected via collectors and diode cathodes to a positive terminal of a buffer capacitor, the negative terminal of which is connected to emitters and diode anodes of the lower switches. A midpoint of the first leg is connected through an output filter inductor to a first terminal of a filter capacitor and a load, the second terminal of which is connected to a midpoint of the second leg and a negative power supply terminal. A fourth leg with two series-connected transistor-diode switches and a center-tapped autotransformer are introduced into the circuit. Outer terminals of the autotransformer are connected between midpoints of the third and fourth legs, and a midpoint of the autotransformer is connected to the positive power supply terminal. A technical result of the invention is a significant expansion of the field of formation and regulation of the output sinusoidal voltage while maintaining the quality of output energy without complicating the control system for the switches of the four legs.