

Method relates to electrical engineering, specifically to conversion equipment and can be used in controlling a transistor resonant converter with a modular structure based on a voltage inverter with bridge topology, for induction heating equipment, ultrasonic cleaning systems, and the like. In the proposed method for controlling a transistor resonant converter with a modular structure based on a voltage inverter, a change in pulse density of PDM sequences occurs not only in one channel of the converter, but sequentially in each of the channels of the converter, which allows for almost complete equalization of power losses in the channels of the converter, and for complete equalization of power losses between the channels of the converter, the involved PDM sequences are alternated between the channels of the converter. Another advantage of the method is that in a maximum current limiting mode of the converter, a current flowing through the channels of the converter does not exceed a rated current of said channels or said excess is negligible.