

The invention relates to electric engineering, in particular to converter equipment and can be used in the voltage converters which do not required electrical isolation of input and output circuits: converters, shapers, stabilizers, correctors, normalizers of direct and alternating current, a secondary power source, systems of remote and distributed power supply etc. A method includes conversion of input voltage to a high-frequency pulse sequence, whose amplitude is proportional to an input voltage modulo, pulse width is proportional to the modulo of input /output voltages difference, further rectifying and smoothing, input voltage is shaped as addition of input voltage to voltage of rectified HF pulses, whose polarity depends on sign of voltage conversion. A voltage converter of primary power source to preset voltage of another level comprises an input smoothing filter, whose input is connected to a primary power source, an inverter, whose input is connected to the input of smoothing filter, the output is connected to a rectifier input through a transformer, an output smoothing filter, whose output is connected to a load, a control device, the output of rectifier is in series connected to the output of input smoothing filter and input of output smoothing filter. The technical result is decrease of total power of converted energy and level of output voltage HF pulsation, mass and cost reduction, decrease in dimensions, reduction of electric energy loss on the whole.