

This invention relates to the electrical engineering, namely to alternating current voltage-to-direct current voltage converters.

The alternating current voltage-to-direct current voltage conversion plant, according to the first embodiment, comprises a rectifier bridge (1), whose input is connected to the supply terminals (13), to the output of which are connected n elementary filtering capacitors (2), connected in series, a high-frequency transformer, the primary winding of which is formed of n sections (4), each section is connected in series to a switching transistor (5), forming a branch. Each branch is connected in series to the next, at the same time all are connected to the output of the bridge (1). The connection nodes (16) of the capacitors (2) are connected to the connection nodes (17) of the branches of the primary winding of the transformer. Each node of connection (19) of a section (4) to the transistor (5), except for the first node, is connected via a return diode (3) to the node of connection of the start of the previous section (4) to the capacitor (2). The plant also includes a rectifier, consisting of an inductance coil (8), made on the same magnetic circuit (12) with the secondary winding (7) of the transformer and connected in series to it, but in antiphase with the sections (4) of the primary winding of the transformer. The node of connection of the secondary winding (7) of the transformer and the inductance coil (8) is connected through a rectifier diode (10) to a rectifier diode (9), connected in series to the start of the secondary winding (7) of the transformer. The connection node of the diodes (9) and (10) and the start of the inductance coil (8) are connected to the load (6) connection terminals (14), between which is connected a filtering capacitor (11).

In the plant, according to the second and third embodiments, all sections, except for the first, are made with a tap.

Claims: 3

Fig.: 5

