

The invention relates to the systems for cooling of high-voltage electric units, filled up with dielectric liquid, in particular of power transformers, X-ray units etc.

The electrohydrodynamic heat-sink includes the input 1 and output 2 collectors, coupled between them by pipes 3, wherein there are placed high-voltage electrodes 5, connected to the high-voltage source. The pipes are installed in sections by twos and placed in parallel in two rows forming an exhaust duct. Each section is installed in a housing.

In each pipe 3 along the axis there is installed for one high-voltage electrode 5, made in the form of a wire with perforated dielectric coating, the length of which is equal to the pipe length. The electrode in the pipe is fixed by means of dielectric bushes - external 11 and internal 12, installed coaxially and joined between them by spokes. The bushes are shifted one about the other along the pipe axis at a distance equal to the pipe diameter, and their length is equal to 1,5 diameters of the pipe. With that, the external bush 11 is fixed into the pipe and shifted towards the output collector 2, and into the internal bush 12 there is installed a high-voltage electrode, the free end of which is oriented towards the input collector and isolated with a bush.