

The invention refers to electrotechnical devices for converting electrical energy into thermal energy in hydraulic systems in order to increase the temperature of the fluids and can be used as an continuous-flow heater with high energy efficiency in technological systems and installations in which the fluid imposes specific technical characteristics with their exact maintenance and regulation.

The inductive heater contains an inductor (8), consisting of seven spires, made of a copper tube and wrapped around a core, which is made up of two pieces in the form of tubular rings of ferromagnetic material: an inner cylinder (5) and an outer cylinder (7). On the outside of the inner cylinder (5) are made cuts of such shape and length that a channel (6) is obtained for the passage of the fluid to be heated when the cylinders are assembled. The inductor, whose spires are distant from each other, is isolated from the core by means of an insulator (4) with high thermal and electrical resistance. On the outside of the inductor are added electrotechnical steel sheets (9) which, in turn, are kept away from the inductor by means of the side shields (3), positioning both the components of the magnetic circuit and the core. The elements (1) and (2) are the component parts of the thermal protection system, made of a material with high thermal resistance and a low thermal conductivity coefficient.

Claims: 1

Fig.: 3

