

Title (en)  
Heat exchanger for fluids

Title (de)  
Wärmetauscher für Flüssigkeiten

Title (fr)  
Échangeur de chaleur pour fluides

Publication  
**EP 2112438 A2 20091028 (EN)**

Application  
**EP 09158161 A 20090417**

Priority  
IT VE20080012 U 20080424

Abstract (en)  
The heat exchanger of the invention comprises substantially a U-shaped armoured resistance element (2) constructed of stainless steel and provided at its ends with insulators (4) from which push on connectors (6) emerge for connection to the electric mains cables. A metal tube (8), preferably of stainless steel, but high nickel/chromium content alloys could be used, is wound as a spiral about the resistance element (2). The tube (8) is secured by brazing with (nickel) alloys able to reliably withstand the maximum operating temperature of the resistance element and to adequately transmit the heat generated by the resistance element to the tube. The tube is provided at its ends with connectors (10) of gas type for its connection to the hydraulic circuit. The resistance element (2) and the tube (8) are braze-welded to two C-shaped brackets (12) with their flanges (14) provided with holes (16) for fixing to a support structure (not shown in the drawings). The same brackets (12) are also used for mounting safety and/or operational thermostats. A sleeve (18) is applied to the outer surface of the tube (8) at one of the two brackets, and houses internally a thermal fuse (not shown in the drawings) connected into the electrical network supplying the resistance element, to interrupt this supply when a predetermined temperature is exceeded.

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Cited by  
IT201700060931A1; CN101943464A; CN104333924A; CN106133455A; WO2018224909A1; WO2015107510A1; WO2019002492A1; WO2022068090A1

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