

Title (en)
DEVICE FOR CONVERTING THERMAL ENERGY TO ELECTRICAL ENERGY

Title (de)
ANORDNUNG ZUM UMWANDELN VON THERMISCHER IN ELEKTRISCHE ENERGIE

Title (fr)
DISPOSITIF POUR CONVERTIR DE L'ENERGIE THERMIQUE EN ENERGIE ELECTRIQUE

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Abstract (en)
[origin: DE19719190A1] The invention relates to a known device for converting thermal energy to electrical energy, comprising a working circuit (2) with a working fluid to drive a turbo-engine (1) and a plurality of heat exchangers (10) alternatively crossflowed by a cold and a warm medium, in which an expansion element (9) is arranged that expands or contracts depending on the temperature of the medium. The temperature-dependent expansions and contraction of the expansion element (9) are directly fed to the working circuit (2) by means of a buffer storage. In order to reduce high expenditures for heat isolation of the suction and pressure lines (25, 15), the invention provides that a buffer storage configured as a spring (4) designed to store a force is allocated to each heat exchanger (10), whereby each spring (4) is connected to the piston (12) of a pressure cylinder (11) whose working chamber (13) is connected to the working circuit (2) by means of suction and pressure lines (25, 15) via adjustable valves.

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