

Title (en)

SYSTEMS AND METHODS FOR CONVERTING THERMAL ENERGY

Title (de)

VERFAHREN UND VORRICHTUNG ZUR UMWANDLUNG VON THERMISCHER ENERGIE

Title (fr)

SYSTEMES ET PROCEDES DE TRANSFORMATION DE L'ENERGIE THERMIQUE

Publication

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Application

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Abstract (en)

[origin: WO9924766A1] The present invention provides devices and methods for obtaining mechanical, electrical and cooling power from a high temperature heat source (80), which maybe intermittent, and an ambient temperature heat source (130). In one embodiment of the invention, the working fluid (100) passes through a fluid circuit including a first vaporizer (10), an expansion device (30) for providing useful mechanical power from the vaporized liquid, a first heat exchanger (40) for cooling the high pressure vaporized liquid, a reservoir for collecting (50), by gravity, the high pressure vaporized liquid, a first valve (60) leading to a second heat exchanger (260), which may or may not be necessary, leading by gravity flow to a second valve (70), allowing the cool, low pressure liquid to drain back by gravity to the first vaporizer. In this embodiment, the first vaporizer is heated by a high temperature heat source, and the expansion device provides mechanical power to an electric generator.

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