Title (en)

Hybrid cooling system, and refrigerator and freezer using the same

Title (de)

Hybride Kühlanlage und dieselbe Kühlanlage verwendender Kühlschrank und Gefrierschrank

Title (fr)

Système de refroidissement hybride et réfrigérateur et congélateur l'utilisant

Publication

EP 1677059 A2 20060705 (EN)

Application

EP 05077379 A 20051017

Priority

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Abstract (en)

A hybrid cooling system comprising a compressor (10) for compressing a gas refrigerant, a condenser (20) for condensing the refrigerant compressed in the compressor to a liquid state, an expansion (30) device for expanding the refrigerant condensed in the condenser, and an evaporator (40) for heat-exchanging the expanded refrigerant with ambient air, thereby evaporating the refrigerant. This hybrid cooling system further comprises a thermoelectric module (50) for re-cooling the air, which has been cooled in accordance with the heat exchange in the evaporator, using a Peltier effect generated in accordance with an electrical co-operation of P-type and N-type semiconductor elements (53, 54) included in the thermoelectric module with current flowing through the semiconductor elements. The invention also relates to the application of such a cooling system in a freezer or a refrigerator.

IPC 8 full level

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CPC (source: EP KR US)

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