

Title (en)

Refrigerator incorporating thermoelectric modules with reverse thermoelectric effect.

Title (de)

Kühlschrank mit thermoelektrischen Modulen, die einen umgekehrten thermoelektrischen Effekt aufweisen.

Title (fr)

Réfrigérateur muni de modules thermo-électriques à effet thermo-électrique inverse.

Publication

EP 0342165 A2 19891115 (EN)

Application

EP 89830200 A 19890510

Priority

IT 4796088 A 19880513

Abstract (en)

The cold side of the module(s) (1) is coupled to a dissipator element (2) facing directly onto the refrigerator compartment (9). The hot side faces onto a ventilated dissipator element (3) that dispels the calories generated by the reverse thermoelectric process. Appropriate thermic insulation (12) between the hot side and the cold side optimizes the use of the refrigeration units produced. The thermoelectric module (1) is powered by direct low-voltage current flowing in one direction only and such as to generate on the cold side the amount of refrigeration units necessary to suitably cool a refrigeration compartment which is capable of performing its traditional function without limits. The refrigerator according to the invention can be subordinated, by means of an electronic circuit (6), to the signal transmitted by a temperature sensor located inside the refrigerator compartment which enables the user to set up a temperature-control program, and to select precisely defined operating conditions.

IPC 1-7

F25B 21/02

IPC 8 full level

F25B 21/02 (2006.01); **F25D 11/00** (2006.01)

CPC (source: EP)

F25B 21/02 (2013.01); **F25B 2321/0251** (2013.01); **F25D 11/00** (2013.01)

Cited by

US5605047A; ES2128227A1; US5501076A; US5522216A; US5576512A; US5505046A; EP0843137A1; AU743606B2; DE10149425A1; DE10149425B4; US5398510A; WO9726490A1

Designated contracting state (EPC)

CH DE ES FR GB LI NL SE

DOCDB simple family (publication)

EP 0342165 A2 19891115; **EP 0342165 A3 19900425**; CN 1039099 A 19900124; IT 1234999 B 19920616; IT 8847960 A0 19880513

DOCDB simple family (application)

EP 89830200 A 19890510; CN 89103332 A 19890513; IT 4796088 A 19880513