

Title (en)

Thermoelectric cooling chip based air conditioner

Title (de)

Klimaanlage auf Basis eines thermoelektrischen Kühlchips

Title (fr)

Climatiseur d'air basé sur une puce de refroidissement thermoélectrique

Publication

EP 2295879 A1 20110316 (EN)

Application

EP 09172997 A 20091014

Priority

CN 200910070238 A 20090826

Abstract (en)

A thermoelectric cooling chip based air conditioner includes a semiconductor thermoelectric cooling chip as the primary constituent component. The thermoelectric cooling chip induces cold and heat respectively on two surfaces thereof through thermoelectric effect. The surface that generates cold uses a cooling fin and a cooling water circulation piping to store the cold in the cooling fm. A control interface of a host device is provided and includes a temperature setting switch that controls a desired temperature, whereby cold air is blown out by a cold air fan to effect cooling of an indoor space. The surface that generates heat uses a heat dissipation fin and a heat dissipation water circulation piping to effect removal of heat therefrom and a heat dissipation fan is then used to discharge air. Thus, the air conditioner, when put into operation, may efficiently lower the room temperature of the indoor space.

IPC 8 full level

F24F 1/0323 (2019.01); **F24F 5/00** (2006.01)

CPC (source: EP US)

F24F 1/0323 (2019.01 - EP US); **F24F 5/0042** (2013.01 - EP)

Citation (search report)

- [X] US 2004177621 A1 20040916 - CHEN TSUNG-CHIH [TW]
- [X] EP 1767874 A1 20070328 - CHEN CHUAN SHENG [TW]
- [XI] EP 1923641 A2 20080521 - ORRA CORP [US]
- [XI] US 3040538 A 19620626 - ALSING CARL F
- [X] US 4279292 A 19810721 - SWIATOSZ EDMUND
- [X] DE 1426976 A1 19691030 - LAING NIKOLAUS

Cited by

CN114909736A; CN115164303A; US2018023823A1; US10386085B2; CN107395529A; CN110454898A

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