

Title (en)

WARMING AND COOLING SYSTEM

Publication

EP 0515055 A3 19930113 (EN)

Application

EP 92304031 A 19920505

Priority

JP 14420791 A 19910521

Abstract (en)

[origin: EP0515055A2] A warming and cooling system includes a cooling device (3, 4) for installation in an upper part (22) of a living space, a warming device (10, 11) for installation in a lower part (23) of the living space, a heat pump (7) having an evaporation portion (15) and a condensation portion (16) and serving as a heat transfer drive source for transferring heat recovered from the cooling device, a heat exchanger (8) to which the recovered heat is transferred, first heat pipe device (5, 6) having brine sealed therein and connecting the evaporation portion of the heat pump to the cooling device, second heat pipe device (17, 18) having brine sealed therein and connecting the condensation portion of the heat pump to the heat exchanger, and third heat pipe device (12, 13) having brine sealed therein and connecting the heat exchanger to the warming device to allow the warming device to emit radiant heat for warming the lower part of the living space.

IPC 1-7

F24F 5/00; **F24F 12/00**

IPC 8 full level

F24F 5/00 (2006.01); **F24F 12/00** (2006.01)

CPC (source: EP KR)

F24F 5/0089 (2013.01 - EP); **F24F 5/0092** (2013.01 - EP); **F24F 12/00** (2013.01 - EP); **F28D 7/00** (2013.01 - KR)

Citation (search report)

- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 500 (M-891)10 November 1989 & JP-A-01 200 128 (ODAYASHI) 11 August 1989
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 335 (M-1000)19 July 1990 & JP-A-02 115 637 (CLARION)

Cited by

DE102014109299A1; CN114322345A

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0515055 A2 19921125; **EP 0515055 A3 19930113**; AU 1638992 A 19921126; CA 2067269 A1 19921122; CN 1067112 A 19921216; JP H04344039 A 19921130; KR 920021963 A 19921219; TW 197491 B 19930101

DOCDB simple family (application)

EP 92304031 A 19920505; AU 1638992 A 19920520; CA 2067269 A 19920427; CN 92103699 A 19920518; JP 14420791 A 19910521; KR 920005617 A 19920403; TW 81102681 A 19920408