

Title (en)

Heat pump type air conditioner

Title (de)

Wärmepumpenartige Klimaanlage

Title (fr)

Conditionneur d'air de type pompe à chaleur

Publication

EP 1321727 A2 20030625 (EN)

Application

EP 02023360 A 20021018

Priority

KR 20010081991 A 20011220

Abstract (en)

In a heat pump type air conditioner capable of maintaining a room temperature constantly by including two outdoor heat exchangers (16,18) and performing a heating operation with one heat exchanger when the other heat exchanger performs a defrosting operation, the heat pump type air conditioner includes a compressor (12) for compressing a coolant; a four-way valve (14) for switching a flow of the coolant normally or reversely; a first and a second outdoor heat exchangers (16,18) respectively installed outdoors, used as a condenser in cooling and used as an evaporator in heating; plural indoor heat exchangers respectively installed at each indoor space and performing a cooling/heating operation; a first and a second outdoor expansion valves (20,22) respectively installed at coolant pipes for connecting the first and second outdoor heat exchangers (16,18) with the indoor heat exchangers (8a,8b) in order to turn the coolant into a low temperature-low pressure state and open/close the coolant pipes; and a control unit (6) for making one of the first and second outdoor heat exchangers (16,18) perform a defrosting operation and making the rest perform a heating operation by controlling the first and second outdoor expansion valves (20,22). <IMAGE>

IPC 1-7

F25B 13/00

IPC 8 full level

F24F 11/02 (2006.01); **F25B 13/00** (2006.01); **F25B 29/00** (2006.01); **F25B 47/02** (2006.01)

CPC (source: EP KR)

F25B 13/00 (2013.01 - EP); **F25B 29/00** (2013.01 - KR); **F25B 2313/0233** (2013.01 - EP); **F25B 2313/0251** (2013.01 - EP)

Cited by

US2017314813A1; US2017314795A1; US7823397B2; EP1598610A3; CZ302759B6; EP2525160A4; CN103629862A; CN106403200A; CN104896785A; EP1657505A1; CN102155790A; US10345003B2; EP3452764A4; US10612798B2; EP2581692A3; EP4033170A4; WO2014029316A1; US9217587B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1321727 A2 20030625; **EP 1321727 A3 20031119**; **EP 1321727 B1 20070425**; CN 1190640 C 20050223; CN 1430030 A 20030716; DE 60219753 D1 20070606; DE 60219753 T2 20070816; JP 2003194384 A 20030709; JP 3816860 B2 20060830; KR 100442392 B1 20040730; KR 20030051091 A 20030625

DOCDB simple family (application)

EP 02023360 A 20021018; CN 02157841 A 20021220; DE 60219753 T 20021018; JP 2002311133 A 20021025; KR 20010081991 A 20011220