

Title (en)

AIR CONDITIONER

Title (de)

KLIMAANLAGE

Title (fr)

CLIMATISEUR

Publication

EP 2211123 A4 20120718 (EN)

Application

EP 08837535 A 20081010

Priority

- JP 2008002865 W 20081010
- JP 2007264615 A 20071010

Abstract (en)

[origin: EP2211123A1] The present invention provides an air conditioner that can optimize the COP even if usage conditions vary. A refrigerant circuit (10) comprises and connects a compressor (21), an outdoor heat exchanger (23), an indoor expansion valve (41, 51), and an indoor heat exchanger (42, 52) such that a refrigerant circulates therein. An outdoor fan (28) feeds a fluid toward the outdoor heat exchanger (23). A heat exchanging temperature sensor (33) senses a condensing temperature of the refrigerant. An outdoor temperature sensor (36) senses the temperature of the outdoor air, which exchanges heat with the refrigerant inside the outdoor heat exchanger (23). A control unit (8) controls at least one member selected from the group consisting of the compressor (21), the indoor expansion valve (41, 51), and the outdoor fan (28) using as a target value a value calculated by dividing a degree of supercooling of the refrigerant in the vicinity of an outlet of the outdoor heat exchanger (23) by the difference between the condensing temperature ascertained by the heat exchanging temperature sensor (33) and the outdoor temperature ascertained by the outdoor temperature sensor (36).

IPC 8 full level

F25B 1/00 (2006.01); **F24F 11/02** (2006.01); **F24F 11/76** (2018.01); **F25B 13/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)

F25B 49/02 (2013.01 - EP US); **F24F 2110/12** (2017.12 - EP US); **F24F 2140/20** (2017.12 - EP US); **F25B 13/00** (2013.01 - EP);
F25B 2400/13 (2013.01 - EP); **F25B 2600/19** (2013.01 - EP); **F25B 2700/2106** (2013.01 - EP); **F25B 2700/2116** (2013.01 - EP)

Citation (search report)

- [XA] JP H08189735 A 19960723 - DAIKIN IND LTD
- [A] JP H0914780 A 19970117 - NIPPON DENSO CO
- [A] EP 0692683 A2 19960117 - TOSHIBA KK [JP]
- See references of WO 2009047906A1

Cited by

CN112856842A; CN103115417A; CN105627496A; US11486617B2; US2022026082A1; WO2013165535A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2211123 A1 20100728; EP 2211123 A4 20120718; EP 2211123 B1 20181205; AU 2008310483 A1 20090416;
AU 2008310483 B2 20110908; CN 101821560 A 20100901; CN 101821560 B 20150204; ES 2716469 T3 20190612; JP 5056855 B2 20121024;
JP WO2009047906 A1 20110217; WO 2009047906 A1 20090416

DOCDB simple family (application)

EP 08837535 A 20081010; AU 2008310483 A 20081010; CN 200880110783 A 20081010; ES 08837535 T 20081010;
JP 2008002865 W 20081010; JP 2009536929 A 20081010