

Title (en)
Air conditioner

Title (de)
Klimaanlage

Title (fr)
Climatiseur

Publication
EP 2363654 A2 20110907 (EN)

Application
EP 11152696 A 20110131

Priority
JP 2010039419 A 20100224

Abstract (en)
An air conditioner comprising: a set of outdoor unit 2 having a compressor 21 that compresses a refrigerant, an outdoor heat exchanger 22, and a four-way valve 23; and a plurality of indoor units 3 respectively having indoor heat exchangers 31 connected to the outdoor unit through a liquid refrigerant pipe 5 and a gas refrigerant pipe 6, in which the outdoor unit is arranged above the indoor units. The air conditioner further includes: on-off valves 32 respectively provided in the indoor units 3 on a side of the liquid refrigerant pipe 5; and a controller 72 that performs a defrost operation by switching the four-way valve 23, and the controller once controls the on-off valves 32 in a closing direction when the four-way valve 23 switches the defrost operation to a heating operation.

IPC 8 full level
F24F 1/00 (2011.01); **F24F 3/06** (2006.01); **F24F 11/00** (2006.01); **F25B 5/02** (2006.01); **F25B 47/02** (2006.01)

CPC (source: EP US)
F24F 3/065 (2013.01 - EP); **F24F 11/30** (2017.12 - EP US); **F24F 11/42** (2017.12 - EP US); **F24F 11/64** (2017.12 - EP US); **F24F 11/84** (2017.12 - EP US); **F25B 47/025** (2013.01 - EP); **F24F 11/41** (2017.12 - EP US); **F24F 2110/10** (2017.12 - EP US); **F24F 2110/12** (2017.12 - EP US); **F24F 2140/00** (2017.12 - EP US); **F24F 2140/12** (2017.12 - EP US); **F25B 5/02** (2013.01 - EP); **F25B 2600/2513** (2013.01 - EP); **F25B 2600/2519** (2013.01 - EP)

Citation (applicant)
JP 2008209022 A 20080911 - MITSUBISHI HEAVY IND LTD

Cited by
CN111829387A; CN104236005A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2363654 A2 20110907; **EP 2363654 A3 20141203**; **EP 2363654 B1 20160907**; JP 2011174667 A 20110908

DOCDB simple family (application)
EP 11152696 A 20110131; JP 2010039419 A 20100224