

Title (en)  
AIR CONDITIONING APPARATUS

Title (de)  
KLIMAANLAGE

Title (fr)  
CLIMATISEUR

Publication  
**EP 3633290 A1 20200408 (EN)**

Application  
**EP 18809576 A 20180531**

Priority  
• JP 2017107916 A 20170531  
• JP 2017154405 A 20170809  
• JP 2017208330 A 20171027  
• JP 2018020954 W 20180531

Abstract (en)  
Provided is an air conditioner capable of suitably controlling, through control of the opening degree of a cooling expansion valve, the degree of superheating of refrigerant that has passed through an evaporator. An air conditioner includes: a compressor (12); an outdoor condenser (13); a cooling expansion valve (14); an evaporator (15); a cooling circuit (11) connecting the compressor (12), the outdoor condenser (13), the cooling expansion valve (14), and the evaporator (15) in that order; a reheat path (21); an indoor condenser (22); a reheat expansion valve (23); and a control apparatus (30). The control apparatus (30) includes: a cooling control unit (31) that adjusts the degree of superheating of refrigerant that has passed through the evaporator (15) by adjusting a circulation amount of the refrigerant in the evaporator (15) through control of the opening degree of the cooling expansion valve (14); and a reheat control unit (32) that adjusts a room temperature by adjusting a circulation amount of the refrigerant in the indoor condenser (22) through control of the opening degree of the reheat expansion valve (23). An upper limit of the opening degree of the reheat expansion valve (23) controlled by the reheat control unit (32) is set based on a ratio between a cooling capacity of the evaporator (15) and a reheat capacity of the indoor condenser (22), the ratio enabling the cooling expansion valve (14) to adjust the degree of superheating.

IPC 8 full level  
**F25B 29/00** (2006.01); **F24F 11/86** (2018.01); **F25B 6/02** (2006.01); **F24F 140/20** (2018.01)

CPC (source: EP)  
**F24F 11/84** (2017.12); **F25B 6/02** (2013.01); **F25B 29/00** (2013.01); **F25B 49/02** (2013.01); **F24F 2110/10** (2017.12); **F24F 2110/20** (2017.12); **F24F 2221/54** (2013.01); **F25B 2500/19** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/191** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/2104** (2013.01); **F25B 2700/21161** (2013.01); **F25B 2700/21162** (2013.01); **F25B 2700/21163** (2013.01); **F25B 2700/21171** (2013.01); **F25B 2700/21172** (2013.01); **F25B 2700/21173** (2013.01)

Cited by  
CN113137674A; FR3137534A1; CN114440392A; CN115540190A; EP4361531A1; WO2024008642A1

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 3633290 A1 20200408**; **EP 3633290 A4 20210303**; **EP 3633290 B1 20230329**; CN 110691950 A 20200114; CN 110691950 B 20210827

DOCDB simple family (application)  
**EP 18809576 A 20180531**; CN 201880036102 A 20180531