

Title (en)
AIR CONDITIONING APPARATUS

Title (de)
KLIMATISIERUNGSVORRICHTUNG

Title (fr)
CLIMATISEUR

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Application
EP 18809576 A 20180531

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Abstract (en)
[origin: EP3633290A1] 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
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Citation (search report)
• [A] JP H05340594 A 19931221 - KUBOTA KK
• [A] JP 2012137241 A 20120719 - MITSUBISHI ELECTRIC AIR CONDITIONING & REFRIGERATION PLANT CO LTD
• [A] JP 2011133170 A 20110707 - DAIKIN IND LTD
• See references of WO 2018221652A1

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

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