

Title (en)  
AIR CONDITIONER

Title (de)  
KLIMAANLAGE

Title (fr)  
CLIMATISEUR

Publication  
**EP 3534088 A4 20191030 (EN)**

Application  
**EP 16920284 A 20161028**

Priority  
JP 2016082119 W 20161028

Abstract (en)  
[origin: EP3534088A1] An air conditioner (10) includes a refrigerant circuit (13) and refrigerant. The refrigerant circuit (13) has a compressor (1), a condenser (2), a pressure-regulating valve (3), and an evaporator (4). The refrigerant is R32. The pressure-regulating valve (3) includes a flow path (33) causing the refrigerant flowing from the condenser (2) to flow to the evaporator (4), a pressure reference chamber (S2) partitioned from the flow path (33) and filled with inert gas, and a valve portion (34) disposed in the flow path (33). The pressure-regulating valve (3) is configured to adjust a degree of opening of the valve portion (34) to adjust a flow rate of the refrigerant flowing through the flow path (33). The valve portion (34) is configured to increase the degree of opening when a pressure in the flow path (33) is higher than a pressure in the pressure reference chamber (S2), and reduce the degree of opening when the pressure in the flow path (33) is lower than the pressure in the pressure reference chamber (S2).

IPC 8 full level  
**F25B 1/00** (2006.01); **F16K 1/00** (2006.01); **F16K 31/126** (2006.01); **F24F 11/00** (2018.01); **F24F 11/84** (2018.01); **F25B 41/06** (2006.01); **G05D 7/01** (2006.01); **G05D 16/06** (2006.01)

CPC (source: EP KR US)  
**F24F 11/84** (2017.12 - EP KR); **F25B 1/00** (2013.01 - EP US); **F25B 13/00** (2013.01 - US); **F25B 41/335** (2021.01 - EP KR US); **F25B 41/385** (2021.01 - EP KR US); **F25B 41/39** (2021.01 - EP KR US); **F25B 2341/06** (2013.01 - EP KR US); **F25B 2600/2513** (2013.01 - EP KR US); **F25B 2700/191** (2013.01 - EP KR US)

Citation (search report)

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- [Y] JP 2004036997 A 20040205 - ZEXEL VALEO CLIMATE CONTR CORP
- [Y] WO 0106183 A1 20010125 - BOSCH AUTOMOTIVE SYSTEMS CORP [JP], et al
- [Y] JP 2008164239 A 20080717 - DENSO CORP
- [Y] JP H08121879 A 19960517 - MITSUBISHI HEAVY IND LTD
- [T] N.N.: "Design Differences for Alternative Refrigerants", 31 December 2015 (2015-12-31), XP055625049, Retrieved from the Internet <URL:https://www.fluorocarbons.org/wp-content/uploads/2017/02/RealAlternatives-2-Design-differences-Feb15.pdf> [retrieved on 20190923]
- See references of WO 2018078808A1

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 3534088 A1 20190904; EP 3534088 A4 20191030; EP 3534088 B1 20220302**; AU 2016427727 A1 20190221; AU 2016427727 B2 20191010; CN 109891164 A 20190614; JP 6312943 B1 20180418; JP WO2018078808 A1 20181101; KR 102147693 B1 20200825; KR 20190032560 A 20190327; US 2020018530 A1 20200116; US 2021172659 A1 20210610; US 2021180842 A1 20210617; WO 2018078808 A1 20180503

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