

Title (en)
AIR-CONDITIONING DEVICE

Title (de)
KLIMATISIERUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE CONDITIONNEMENT D'AIR

Publication
EP 3401609 A4 20190102 (EN)

Application
EP 16883640 A 20160108

Priority
JP 2016050578 W 20160108

Abstract (en)
[origin: EP3401609A1] Provided is an air-conditioning apparatus capable of reducing an amount of refrigerant being used and of preventing a leakage of the refrigerant to a room space. The air-conditioning apparatus includes an outdoor-unit casing accommodating therein a compressor, a refrigerant flow switching device, and a heat-source-side heat exchanger; a heat-medium-relay-unit casing accommodating therein an expansion device and an intermediate heat exchanger; a heat-medium-flow-control-unit casing accommodating therein a heat medium flow control device; an indoor-unit casing accommodating therein a load-side heat exchanger and an indoor air-sending device; and a heat medium conveying device configured to convey a heat medium. In the air-conditioning apparatus, the compressor, the refrigerant flow switching device, the heat-source-side heat exchanger, the expansion device, and a refrigerant passage of the intermediate heat exchanger communicate with each other via refrigerant pipes to form a refrigerant circuit, refrigerant flowing through the refrigerant pipe; and a heat medium passage of the intermediate heat exchanger, the heat medium conveying device, the heat medium flow control device, and the load-side heat exchanger communicate with each other via heat medium pipes to form a heat medium circuit, the heat medium flowing through the heat medium pipe.

IPC 8 full level
F25B 1/00 (2006.01); **F24F 1/26** (2011.01); **F24F 1/32** (2011.01); **F25B 13/00** (2006.01); **F25B 25/00** (2006.01); **F24F 1/00** (2011.01)

CPC (source: EP)
F24F 1/00077 (2019.01); **F24F 1/32** (2013.01); **F25B 13/00** (2013.01); **F25B 2313/003** (2013.01); **F25B 2313/0314** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/1933** (2013.01); **F25B 2700/21152** (2013.01)

Citation (search report)
• [X1] US 2012297812 A1 20121129 - TAKATA SHIGEO [JP], et al
• [X1] EP 2284456 A1 20110216 - MITSUBISHI ELECTRIC CORP [JP]
• [X1] US 2012297803 A1 20121129 - YAMASHITA KOJI [JP], et al
• See references of WO 2017119137A1

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US11815281B2

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 3401609 A1 20181114; **EP 3401609 A4 20190102**; **EP 3401609 B1 20220622**; JP 6522162 B2 20190529; JP WO2017119137 A1 20180906; WO 2017119137 A1 20170713

DOCDB simple family (application)
EP 16883640 A 20160108; JP 2016050578 W 20160108; JP 2017560024 A 20160108