

Title (en)

AIR CONDITIONER OUTDOOR UNIT INCLUDING HEAT EXCHANGE APPARATUS

Title (de)

AUSSENEINHEIT FÜR KLIMAANLAGE MIT WÄRMEAUSTAUSCHVORRICHTUNG

Title (fr)

UNITÉ EXTÉRIEURE DE CLIMATISEUR COMPRENANT UN APPAREIL D'ÉCHANGE DE CHALEUR

Publication

EP 3334986 A4 20181212 (EN)

Application

EP 16875887 A 20160920

Priority

- JP 2015247918 A 20151218
- JP 2015248764 A 20151221
- KR 20160072519 A 20160610
- KR 2016010468 W 20160920

Abstract (en)

[origin: JP2017116122A] PROBLEM TO BE SOLVED: To provide a heat exchange device in which a heat transfer coefficient on a refrigerant side and a heat transfer coefficient on a liquid side such as water have been improved, and to provide a heat exchange device which includes compactness and maintainability. SOLUTION: A heat exchange device 1 includes: an air-cooled heat exchanger 10 for performing heat exchange between a refrigerant and air; and water heat exchangers 20A, 20B for performing heat exchange between the refrigerant and water. Also, expansion valves 45A, 45B for expanding the refrigerant compressed by a compressor 41 are provided at the water heat exchangers 20A, 20B respectively. In the water heat exchangers 20A, 20B, the refrigerant flows in parallel and the water flows in series. Then, the heat exchange device 1 is divided into two housings and accommodated. SELECTED DRAWING: Figure 1

IPC 8 full level

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CPC (source: EP KR US)

F25B 13/00 (2013.01 - EP KR US); **F25B 25/005** (2013.01 - KR); **F25B 2313/003** (2013.01 - EP KR); **F25B 2313/005** (2013.01 - KR); **F25B 2313/0233** (2013.01 - EP KR); **F25B 2400/06** (2013.01 - EP)

Citation (search report)

- [X] US 2012222441 A1 20120906 - SAWADA ITSURO [JP], et al
- [I] US 2015316275 A1 20151105 - YAMASHITA KOJI [JP], et al
- [A] EP 2629031 A2 20130821 - LG ELECTRONICS INC [KR]
- [A] EP 2495510 A1 20120905 - MITSUBISHI ELECTRIC CORP [JP]
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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)

CN 108431523 A 20180821; EP 3334986 A1 20180620; EP 3334986 A4 20181212; JP 2017116122 A 20170629; KR 102493392 B1 20230131; KR 20170073457 A 20170628

DOCDB simple family (application)

CN 201680074168 A 20160920; EP 16875887 A 20160920; JP 2015248764 A 20151221; KR 20160072519 A 20160610