Title (en)

HEAT EXCHANGER AND AIR CONDITIONER EMPLOYING THE SAME

Title (de)

Wärmetauscher und Klimaanlage damit

Title (fr)

Échangeur de chaleur et climatiseur comprenant celui-ci

Publication

EP 2916086 A1 20150909 (EN)

Application

EP 15157890 A 20150305

Priority

JP 2014045131 A 20140307

Abstract (en)

Provided is a heat exchanger with which it is possible to ensure a high enough heat exchange performance by optimizing the heat transfer coefficient and pressure loss of refrigerant by optimizing the configuration of branched circuits, and as well as an air conditioner employing such a heat exchanger. In a fin-tube-type heat exchanger (9) in which HFO refrigerant is employed and the refrigerant is circulated through numerous refrigerant tubes (11) by being branched to and collected from multiple circuits, a maximum number of branched circuits among the numerous refrigerant tubes (11) is six circuits, and, of the total number of the numerous refrigerant tubes (11), the proportion accounted for by a one-circuit portion (13A) and two- and four-circuit portions (13B and 13C) is set within a range from 7 to 30 % in accordance with the capacity of the heat exchanger (9).

IPC 8 full level

F25B 39/00 (2006.01); **F25B 39/02** (2006.01)

CPC (source: EP)

F25B 39/00 (2013.01); **F25B 39/028** (2013.01); F25B 41/42 (2021.01)

Citation (applicant)

- JP 2011002217 A 20110106 - PANASONIC CORP
- JP 2010261683 A 20101118 - DAIKIN IND LTD
- JP 2013501909 A 20130117

Citation (search report)

- [XI] EP 2535668 A1 20121219 - MITSUBISHI HEAVY IND LTD [JP]
- [A] EP 1686323 A2 20060802 - LG ELECTRONICS INC [KR]
- [A] EP 1757869 A2 20070228 - LS CABLE LTD [KR]

Cited by

CN114270117A; WO2021017210A1

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 2916086 A1 20150909; JP 2015169387 A 20150928; JP 6494916 B2 20190403

DOCDB simple family (application)

EP 15157890 A 20150305; JP 2014045131 A 20140307