

Title (en)

Heat exchanger for refrigeration cycle

Title (de)

Wärmetauscher für einen Kältekreislauf

Title (fr)

Échangeur de chaleur pour cycle de réfrigération

Publication

EP 2796825 A1 20141029 (EN)

Application

EP 13002109 A 20130422

Priority

EP 13002109 A 20130422

Abstract (en)

Disclosed herein is a heat exchanger for a refrigeration cycle which is configured in such a manner that refrigerant discharged from a compressor circulates a condenser, a capillary tube, an evaporator, a suction pipe and the compressor in sequential order, and in which the outer surface of the capillary tube and the outer surface of the suction pipe are in thermal contact with each other. In the heat exchanger, the suction pipe and the capillary tube are made of aluminum which is inexpensive, instead of the copper-made suction pipe and the copper-made capillary tube of existing heat exchangers for the refrigeration cycle, and which is easy to apply the meandering. The capillary tube is made of aluminum alloy selected from JIS 3000 series alloy and the suction pipe is made of aluminum selected from JIS 1000 series aluminum. The outer surface of the capillary tube and the outer surface of the suction pipe are melted and bonded together, or particularly, are melted and bonded together by fiber laser beam radiation. Moreover, the invention is directed to a refrigerator being equipped with a heat exchanger of the kind as mentioned above.

IPC 8 full level

F25B 40/00 (2006.01); **F28D 7/00** (2006.01); **F28D 21/00** (2006.01); **F28F 21/08** (2006.01)

CPC (source: EP)

F25B 40/00 (2013.01); **F28D 7/0008** (2013.01); **F28D 7/0016** (2013.01); **F28F 21/084** (2013.01); **F25B 2400/052** (2013.01); **F28D 2021/0068** (2013.01); **F28F 2275/067** (2013.01)

Citation (applicant)

WO 2012050085 A1 20120419 - MATSUMOTO TERUMASA [JP], et al

Citation (search report)

- [YD] WO 2012050085 A1 20120419 - MATSUMOTO TERUMASA [JP], et al
- [Y] EP 0409130 A1 19910123 - NIPPON DENSO CO [JP], et al
- [A] US 5005285 A 19910409 - ISHII YUTAKA [JP]
- [A] EP 2226150 A1 20100908 - SHOWA DENKO KK [JP]

Cited by

CN112074696A

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 2796825 A1 20141029

DOCDB simple family (application)

EP 13002109 A 20130422