

Title (en)

Multilayer heat exchanger and heat exchange system

Title (de)

Mehrschichtiger Wärmetauscher und Wärmetauschsystem

Title (fr)

Échangeur thermique multicouche et système d'échange de chaleur

Publication

EP 2623910 B1 20200902 (EN)

Application

EP 13151567 A 20130117

Priority

JP 2012018128 A 20120131

Abstract (en)

[origin: EP2623910A2] In a multilayer heat exchanger of the present invention, a plurality of heat exchange units for performing heat exchange of a fluid fed from a plurality of compressors is stacked. Each of the heat exchange units has a structure that pluralities of flow passage plates and cooling plates are stacked. Concave grooves formed on surfaces are formed as flow passages of the fluid in the flow passage plates and cooling plates. The flow passage plates and cooling plates are made of metal, the flow passages are formed by chemical etching, and the stacked metal flow passage plates and cooling plates are bonded to each other by diffusion-bonding. Further, each of the heat exchange units is in one-to-one correspondence with each of the compressors.

IPC 8 full level

F28D 9/00 (2006.01); **F04D 29/58** (2006.01); **F28F 3/08** (2006.01)

CPC (source: EP KR US)

F04D 29/5826 (2013.01 - EP US); **F28D 9/005** (2013.01 - EP US); **F28D 9/0075** (2013.01 - EP US); **F28D 9/0093** (2013.01 - EP US); **F28D 9/02** (2013.01 - KR); **F28F 3/00** (2013.01 - KR); **F28F 3/08** (2013.01 - EP US); **F28D 9/0056** (2013.01 - EP US)

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

DOCDB simple family (publication)

EP 2623910 A2 20130807; **EP 2623910 A3 20180411**; **EP 2623910 B1 20200902**; CN 103225974 A 20130731; CN 103225974 B 20151223; JP 2013155971 A 20130815; JP 5943619 B2 20160705; KR 20130088803 A 20130808; US 2013192806 A1 20130801

DOCDB simple family (application)

EP 13151567 A 20130117; CN 201310035194 A 20130130; JP 2012018128 A 20120131; KR 20130010471 A 20130130; US 201213731276 A 20121231