

Title (en)  
MICRO-CHANNEL HEAT EXCHANGER

Title (de)  
MIKROKANALWÄRMETAUSCHER

Title (fr)  
ÉCHANGEUR DE CHALEUR À MICROCANAU

Publication  
**EP 4425082 A1 20240904 (EN)**

Application  
**EP 22889420 A 20221104**

Priority

- CN 202111302595 A 20211104
- CN 202122706128 U 20211104
- CN 202220403404 U 20220225
- CN 202220961160 U 20220421
- CN 202210662495 A 20220613
- CN 202221483863 U 20220613
- CN 2022129911 W 20221104

Abstract (en)  
A micro-channel heat exchanger (100) is provided. The micro-channel heat exchanger (100) includes a plurality of fins (10) and a plurality of flat tubes (20), wherein the plurality of fins (10) are arranged in parallel to form multiple rows, and the fins (10) are provided with insertion slots (11); and the plurality of flat tubes (20) are arranged in parallel to form multiple layers, and the flat tubes (20) are arranged in the insertion slots (11) in a penetrating manner. The micro-channel heat exchanger (100) further comprises a distributor (30) and adapter tubes (40), wherein the distributor (30) is provided with a plurality of capillary tubes (31), one end of the adapter tube (40) is connected to and in communication with the capillary tubes (31), and the other end of the adapter tube (40) is connected to and in communication with the flat tubes (20).

IPC 8 full level  
**F28D 7/00** (2006.01); **F28D 1/04** (2006.01); **F28F 1/12** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP KR US)  
**F25B 39/028** (2013.01 - EP KR); **F28D 1/0478** (2013.01 - EP KR); **F28D 7/1684** (2013.01 - US); **F28F 1/04** (2013.01 - US); **F28F 1/128** (2013.01 - KR); **F28F 1/325** (2013.01 - EP); **F28F 9/02** (2013.01 - US); **F28F 9/0275** (2013.01 - EP); **F28F 9/26** (2013.01 - KR); **F28F 1/32** (2013.01 - EP); **F28F 2215/00** (2013.01 - KR); **F28F 2275/06** (2013.01 - EP KR); **F28F 2280/04** (2013.01 - EP)

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4425082 A1 20240904**; JP 2024537992 A 20241018; KR 20240089307 A 20240620; US 2024280326 A1 20240822; WO 2023078399 A1 20230511

DOCDB simple family (application)  
**EP 22889420 A 20221104**; CN 2022129911 W 20221104; JP 2024519529 A 20221104; KR 20247014833 A 20221104; US 202418651725 A 20240501