

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMETAUSCHER

Title (fr)  
ECHANGEUR DE CHALEUR

Publication  
**EP 4394303 A1 20240703 (EN)**

Application  
**EP 23219462 A 20231221**

Priority  
KR 20220186120 A 20221227

Abstract (en)  
A heat exchanger of the present disclosure includes at least a plurality of fin tubes in which refrigerant channels through which refrigerant flows are formed and which are arranged to be spaced apart in one direction, and a pair of headers configured to communicate with the refrigerant channels of the fin tubes, in which one of the plurality of fin tubes and another adjacent to the one fin tube include a positioning unit that determines positions of each other by contacting each other.

IPC 8 full level  
**F28F 3/04** (2006.01); **F28D 1/03** (2006.01)

CPC (source: EP KR US)  
**F28D 1/0316** (2013.01 - KR); **F28D 1/0325** (2013.01 - KR); **F28D 1/0333** (2013.01 - EP); **F28F 1/32** (2013.01 - US); **F28F 3/025** (2013.01 - KR); **F28F 3/04** (2013.01 - KR); **F28F 9/0243** (2013.01 - US); **F28F 9/0246** (2013.01 - US); **F28D 2021/0068** (2013.01 - KR); **F28F 3/046** (2013.01 - EP); **F28F 2275/04** (2013.01 - KR); **F28F 2280/00** (2013.01 - EP); **F28F 2280/04** (2013.01 - EP KR)

Citation (applicant)  
KR 20190097632 A 20190821 - LG ELECTRONICS INC [KR]

Citation (search report)  
• [X] EP 3985341 A1 20220420 - LG ELECTRONICS INC [KR]  
• [X] CN 109416229 A 20190301 - PANASONIC IP MAN CO LTD  
• [X] CN 113424009 A 20210921 - PANASONIC IP MAN CO LTD  
• [X] KR 101148925 B1 20120523

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 4394303 A1 20240703**; KR 20240103704 A 20240704; US 2024210123 A1 20240627

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**EP 23219462 A 20231221**; KR 20220186120 A 20221227; US 202318396560 A 20231226