

Title (en)
Evaporator using micro-channel tubes

Title (de)
Verdampfer mit Mikrokanalrohren

Title (fr)
Évaporateur avec tubes à microcanaux

Publication
EP 1640682 A1 20060329 (EN)

Application
EP 05253858 A 20050622

Priority
KR 20040073993 A 20040915

Abstract (en)
An evaporator utilizes micro-channel tubes (43), and more particularly, has a structure of a heat exchanger using micro-channel tubes (43), which is applied to an evaporator of a household air conditioner. The evaporator, using micro-channel tubes (43), includes a plurality of heat exchanging units, each heat exchanging unit including a plurality of the micro-channel tubes (43) installed between a pair of headers, and an integral header to transmit refrigerant between the neighboring heat exchanging units.

IPC 8 full level
F28D 1/053 (2006.01); **F28F 9/02** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP KR US)
F25B 39/02 (2013.01 - EP KR US); **F28D 1/05391** (2013.01 - EP US); **F28F 9/00** (2013.01 - KR); **F28F 9/0204** (2013.01 - EP US); **F28F 9/0275** (2013.01 - EP US); **F28F 17/005** (2013.01 - EP US)

Citation (applicant)

- KR 960009342 A 19960322
- KR 20030063980 A 20030731 - LG ELECTRONICS INC [KR]
- KR 20040017447 A 20040227 - LG ELECTRONICS INC
- KR 20040017449 A 20040227 - LG ELECTRONICS INC
- KR 20040017920 A 20040302 - LG ELECTRONICS INC
- KR 20040019628 A 20040306 - LG ELECTRONICS INC

Citation (search report)

- [A] US 2004055327 A1 20040325 - OHTA HIROMI [JP], et al
- [XA] PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12 5 December 2003 (2003-12-05)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2002, no. 09 4 September 2002 (2002-09-04)

Cited by
EP2982924A1; US11499762B2; WO2019142617A1; JP2019128041A; FR3099566A1; EP3742081A4; AU2018402872B2; EP2195597B1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1640682 A1 20060329; CN 1749680 A 20060322; KR 20060025082 A 20060320; US 2006054310 A1 20060316

DOCDB simple family (application)
EP 05253858 A 20050622; CN 200510079932 A 20050627; KR 20040073993 A 20040915; US 15124405 A 20050614