

Title (en)  
HEAT EXCHANGER AND REFRIGERATION DEVICE

Title (de)  
WÄRMETAUSCHER UND KÜHLVORRICHTUNG

Title (fr)  
ÉCHANGEUR DE CHALEUR ET DISPOSITIF DE RÉFRIGÉRATION

Publication  
**EP 2077429 A4 20140507 (EN)**

Application  
**EP 07829000 A 20071002**

Priority  
• JP 2007069260 W 20071002  
• JP 2006283802 A 20061018  
• JP 2007133988 A 20070521

Abstract (en)  
[origin: EP2077429A1] An oil groove (25) for trapping and transporting oil is formed in an inner wall surface of a heat transfer tube (22) of a heat exchanger (12, 13) to extend in an axial direction of the heat transfer tube (22).

IPC 8 full level  
**F28F 1/40** (2006.01); **F25B 1/00** (2006.01); **F25B 39/00** (2006.01); **F25B 43/02** (2006.01); **F28D 1/047** (2006.01); **F28F 1/32** (2006.01); **F28F 13/18** (2006.01); **F28F 17/00** (2006.01)

CPC (source: EP)  
**F25B 39/00** (2013.01); **F28D 1/0477** (2013.01); **F28F 1/32** (2013.01); **F28F 1/40** (2013.01); **F28F 13/185** (2013.01); **F28F 17/005** (2013.01); **F25B 43/02** (2013.01)

Citation (search report)  
• [X] JP H1194481 A 19990409 - GAC KK  
• [X] EP 1389721 A1 20040218 - MATSUSHITA ELECTRIC IND CO LTD [JP]  
• [X] EP 0753709 A2 19970115 - SANYO ELECTRIC CO [JP]  
• [A] US 2003167793 A1 20030911 - HONDA TOMOO [JP], et al  
• See references of WO 2008050587A1

Cited by  
US8904812B2; US9285142B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 2077429 A1 20090708; EP 2077429 A4 20140507**; CN 101523149 A 20090902; CN 101523149 B 20110216; JP 2008122059 A 20080529; WO 2008050587 A1 20080502

DOCDB simple family (application)  
**EP 07829000 A 20071002**; CN 200780038428 A 20071002; JP 2007069260 W 20071002; JP 2007133988 A 20070521