

Title (en)  
Modular heat pipe heat exchanger

Title (de)  
Modularer Wärmerohr-Wärmetauscher

Title (fr)  
Échangeur de chaleur à caloducs modulaires

Publication  
**EP 2381203 A1 20111026 (EN)**

Application  
**EP 10160783 A 20100422**

Priority  
EP 10160783 A 20100422

Abstract (en)  
A heat pipe heat exchanger (12, 12') for transferring heat from a hot gas to a cold gas comprises a housing with a first chamber (14) for feeding a hot gas therethrough; a second chamber (20) for feeding a cold gas therethrough; and a plurality of heat pipes (26) extending between the first chamber (14) and the second chamber (20) for transferring heat from the hot gas to the cold gas. The heat pipe heat exchanger (12, 12') further comprises one or more heat pipe cartridges (36) removably arranged in the housing. Each heat pipe cartridge (36) comprises a frame (38) with a support panel (40) for supporting a plurality of heat pipes (26); the support panel (40) being arranged such that, when the heat pipe cartridge (36) is arranged in the housing, the support panel (40) cooperates with a separation wall (32) between the first chamber (14) and the second chamber (20) to form a gas-tight partition between the first and second chambers (14, 20). The heat pipes (26) traverse the support panel (40) and are secured thereto in a gas-tight manner.

IPC 8 full level  
**F28D 15/02** (2006.01)

CPC (source: EP KR)  
**F28D 1/00** (2013.01 - KR); **F28D 9/00** (2013.01 - KR); **F28D 15/02** (2013.01 - KR); **F28D 15/0275** (2013.01 - EP KR); **F28D 21/001** (2013.01 - KR); **F28F 3/02** (2013.01 - KR); **F28F 19/00** (2013.01 - KR); **F28D 21/001** (2013.01 - EP); **F28F 19/00** (2013.01 - EP); **F28F 2280/02** (2013.01 - EP KR)

Citation (applicant)  
US 4434004 A 19840228 - RATSCHAT GUNTER [DE]

Citation (search report)  
• [X] US 1725906 A 19290827 - GAY FRAZER W  
• [X] US 2003075304 A1 20030424 - ADAMCZYK FRANK [DE]  
• [X] GB 1596666 A 19810826 - FURUKAWA ELECTRIC CO LTD  
• [X] DE 4345107 A1 19950629 - LANG JUERGEN DIPL ING [DE]

Cited by  
US9863716B2; US10473408B2

Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA ME RS

DOCDB simple family (publication)  
**EP 2381203 A1 20111026**; BR 112012026578 A2 20171017; BR 112012026578 B1 20201215; CN 102859310 A 20130102; CN 102859310 B 20150204; DE 10160783 T1 20120223; EP 2561297 A1 20130227; EP 2561297 B1 20131002; JP 2013525728 A 20130620; JP 6144621 B2 20170607; KR 101871907 B1 20180627; KR 20130073889 A 20130703; PL 2561297 T3 20140228; RU 2012149549 A 20140527; RU 2543104 C2 20150227; TW 201200835 A 20120101; TW I487875 B 20150611; WO 2011131726 A1 20111027

DOCDB simple family (application)  
**EP 10160783 A 20100422**; BR 112012026578 A 20110420; CN 201180020069 A 20110420; DE 10160783 T 20100422; EP 11716519 A 20110420; EP 2011056344 W 20110420; JP 2013505478 A 20110420; KR 20127029134 A 20110420; PL 11716519 T 20110420; RU 2012149549 A 20110420; TW 100113871 A 20110421