

Title (en)

HYBRID HEAT TRANSFER SYSTEM

Title (de)

HYBRIDES WÄRMETRANSFERSYSTEM

Title (fr)

SYSTÈME DE TRANSFERT DE CHALEUR HYBRIDE

Publication

**EP 3227625 A1 20171011 (EN)**

Application

**EP 15817013 A 20151204**

Priority

- US 201462088362 P 20141205
- US 2015063987 W 20151204

Abstract (en)

[origin: WO2016090243A1] According to one aspect, a hybrid heat transfer system includes a first thermally conductive path configured to passively transfer heat between a load having a load temperature (TL) and an ambient environment having an ambient temperature (TA), and a second thermally conductive path configured to actively transfer heat between the load and the ambient environment, the second path comprising a heat pump.

IPC 8 full level

**F28F 13/00** (2006.01); **F28D 15/02** (2006.01); **F28D 20/02** (2006.01); **F28F 27/00** (2006.01)

CPC (source: CN EP KR US)

**F25B 13/00** (2013.01 - CN KR US); **F25B 21/02** (2013.01 - EP KR US); **F25B 41/20** (2021.01 - KR); **F25D 16/00** (2013.01 - EP KR US);  
**F25D 19/006** (2013.01 - KR); **F28D 15/02** (2013.01 - CN KR); **F28D 20/02** (2013.01 - CN KR); **F28F 13/00** (2013.01 - CN EP US);  
**F28F 27/00** (2013.01 - CN EP KR US); **G06F 1/20** (2013.01 - EP US); **G06F 1/206** (2013.01 - EP KR US); **H01L 23/427** (2013.01 - EP KR US);  
**H01L 23/467** (2013.01 - EP US); **H05K 7/20154** (2013.01 - EP KR US); **F25D 19/006** (2013.01 - EP US); **F28D 15/02** (2013.01 - EP US);  
**F28D 20/02** (2013.01 - EP US); **F28F 2013/008** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US); **Y02D 10/00** (2017.12 - EP US);  
**Y02E 60/14** (2013.01 - EP)

Citation (search report)

See references of WO 2016090243A1

Citation (examination)

US 6880346 B1 20050419 - TSENG HSIANG-CHIEH [TW], et al

Cited by

EP4117404A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2016090243 A1 20160609**; CN 107110569 A 20170829; EP 3227625 A1 20171011; JP 2017537295 A 20171214;  
KR 20170091620 A 20170809; US 2016161155 A1 20160609

DOCDB simple family (application)

**US 2015063987 W 20151204**; CN 201580065446 A 20151204; EP 15817013 A 20151204; JP 2017530085 A 20151204;  
KR 20177015118 A 20151204; US 201514959408 A 20151204