

Title (en)  
COUNTER FLOW HEAT EXCHANGER

Title (de)  
GEGENSTROMWÄRMETAUSCHER

Title (fr)  
ÉCHANGEUR THERMIQUE À CONTRE-COURANT

Publication  
**EP 3604998 A1 20200205 (EN)**

Application  
**EP 19188326 A 20190725**

Priority  
US 201816054253 A 20180803

Abstract (en)  
A counter-flow heat exchanger (100) including: a primary flow passageway (102) comprising a primary flow inlet (104), a primary flow outlet (106), and a plurality of primary flow subset passageways (108) therebetween; a secondary flow passageway (112) comprising a secondary flow inlet (114), a secondary flow outlet (116), and a plurality of secondary flow subset passageways (118) therebetween; and a heat exchanger core (120) comprising portions of the plurality of primary flow subset passageways (108) and the plurality of secondary flow subset passageways (118), the secondary flow passageway (112) being in thermal communication with the primary flow passageway (102) in the heat exchanger core (120), wherein the primary flow subset passageways (108) in the heat exchanger core (120) and the secondary flow subset passageways (118) in the heat exchanger core (120) are oriented such that primary fluid flow through the primary flow subset passageways (108) flows opposite secondary fluid flow through the secondary flow subset passageways (118).

IPC 8 full level  
**F28D 7/00** (2006.01); **F28F 7/02** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP US)  
**F28D 7/0008** (2013.01 - EP); **F28D 7/0033** (2013.01 - US); **F28D 7/1607** (2013.01 - US); **F28D 7/1646** (2013.01 - US);  
**F28D 9/0081** (2013.01 - US); **F28F 1/025** (2013.01 - US); **F28F 7/02** (2013.01 - EP); **F28F 9/0256** (2013.01 - US); **F28F 9/0275** (2013.01 - EP);  
**F28D 2021/0021** (2013.01 - US); **F28D 2021/0026** (2013.01 - US); **F28F 2210/02** (2013.01 - EP US); **F28F 2255/18** (2013.01 - US)

Citation (search report)  
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• [X] US 2017030651 A1 20170202 - ROCK JR PETER JOSEPH [US], et al  
• [X] US 2017328644 A1 20171116 - TAKAHASHI SUGURU [JP]

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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)  
**EP 3604998 A1 20200205**; US 2020041212 A1 20200206

DOCDB simple family (application)  
**EP 19188326 A 20190725**; US 201816054253 A 20180803