

Title (en)

CROSS-FLOW PLATE HEAT AND/OR MOISTURE EXCHANGER

Title (de)

KREUZSTROMPLATTENWÄRME- UND/ODER -FEUCHTEAUSTAUSCHER

Title (fr)

ECHANGEUR DE CHALEUR ET/OU D'HUMIDITÉ À PLAQUES À COURANTS CROISÉS

Publication

EP 3414508 B1 20191113 (DE)

Application

EP 16707626 A 20160211

Priority

EP 2016000227 W 20160211

Abstract (en)

[origin: WO2017137054A1] The invention relates to a cross-flow plate heat and/or moisture exchanger having plates which are arranged above, below or next to one another, and form alternating flow passages for a first and a second fluid. According to the invention, for a cross-flow plate heat and/or moisture exchanger of this type, in order to achieve an improved transfer performance and an increased pressure stability in relation to differential pressures between the two fluids, each plate (2) has a first cross-flow region (4), a following counter flow region (6) in the flow direction of the first cross-flow region (4), and a following second cross-flow region (10) in the flow direction of the counter flow region (6). The cross-flow regions (4, 10) of neighbouring plates are to form flow channels (5, 11) running approximately perpendicular to one another, wherein the counter flow regions (6) of neighbouring plates form counter flow channels (7) running approximately parallel to one another and the first or second cross-flow region (4, 10) of each plate (2) corresponds to the second or first cross-flow region of each neighbouring plate in terms of the dimensions thereof, and is arranged above, below or next to same, and wherein the counter flow region (6) of each plate (2) corresponds to the counter flow region of each neighbouring plate (3) in terms of the dimensions thereof, and is arranged above, below or next to same.

IPC 8 full level

F28D 9/00 (2006.01); **F24F 12/00** (2006.01); **F28D 9/02** (2006.01); **F28D 21/00** (2006.01)

CPC (source: EP US)

F28D 9/005 (2013.01 - EP US); **F28D 9/0068** (2013.01 - EP US); **F28D 9/02** (2013.01 - EP US); **F28D 21/0014** (2013.01 - EP US);
F28D 21/0015 (2013.01 - US); **F28F 2250/108** (2013.01 - EP US)

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

DOCDB simple family (publication)

WO 2017137054 A1 20170817; CA 3014091 A1 20170817; EP 3414508 A1 20181219; EP 3414508 B1 20191113; ES 2770318 T3 20200701;
PL 3414508 T3 20200518; RU 2018130819 A 20200311; US 2019086156 A1 20190321

DOCDB simple family (application)

EP 2016000227 W 20160211; CA 3014091 A 20160211; EP 16707626 A 20160211; ES 16707626 T 20160211; PL 16707626 T 20160211;
RU 2018130819 A 20160211; US 201616073502 A 20160211