

Title (en)  
PLATE HEAT EXCHANGER CAPACITOR EVAPORATOR AND METHOD FOR CRYOGENIC DECOMPOSITION OF AIR

Title (de)  
PLATTENWÄRMETAUSCHER-KONDENSATORVERDAMPFER UND VERFAHREN ZUR TIEFTEMPERATURZERLEGUNG VON LUFT

Title (fr)  
ÉVAPORATEUR-CONDENSATEUR-ÉCHANGEUR THERMIQUE À PLAQUES ET PROCÉDÉ CRYOGÉNIQUE DE SÉPARATION D'AIR

Publication  
**EP 3159648 B1 20180919 (DE)**

Application  
**EP 15002975 A 20151020**

Priority  
EP 15002975 A 20151020

Abstract (en)  
[origin: CN106595222A] The present invention relates to a plate heat exchanger-capacitor evaporator with a heat exchanger block (10), and the plate heat exchanger-capacitor evaporator has a plurality of heat exchanger plates (20, 30) with a liquid guide structure (21, 31) ; the heat exchanger block (10) has a first outer surface (11), a second outer surface (12) opposite the first outer surface (11), a third outer surface (13) and a fourth outer surface (14) opposite to the third outer surface (13); the liquid guide structure (21) of the first heat exchanger plate (20) has first and second openings (211, 212) which are not covered by a liquid introduction pipe and a liquid collection pipe; the liquid guide structure (31) of the second heat exchanger plate (31) extends between a liquid introduction pipe (40) arranged on the heat exchanger block (10) and a liquid collection pipe (50) arranged on the heat exchanger block (10); the liquid introduction pipe (40) is arranged on the first outer surface (11); the first opening (211) of the liquid guide structure (21) of the first heat exchanger plate (20) is either arranged in a region of the first outer surface (11) which is not covered by the liquid introduction pipe (40), or is arranged on a first area of the third outer surface (13) and a first area of the fourth outer surface (14).

IPC 8 full level  
**F28F 3/02** (2006.01); **F28D 9/00** (2006.01); **F28F 9/02** (2006.01)

CPC (source: CN EP)  
**F25J 3/0406** (2013.01 - CN); **F25J 3/04066** (2013.01 - CN); **F25J 3/04072** (2013.01 - CN); **F25J 5/00** (2013.01 - CN); **F25J 5/005** (2013.01 - EP); **F28D 9/0062** (2013.01 - EP); **F28D 9/0068** (2013.01 - EP); **F28F 3/025** (2013.01 - EP); **F28F 9/02** (2013.01 - EP); **F25J 2250/02** (2013.01 - EP); **F25J 2290/32** (2013.01 - EP)

Cited by  
EP3653983A1; FR3096767A1

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)  
**EP 3159648 A1 20170426**; **EP 3159648 B1 20180919**; CN 106595222 A 20170426; JP 2017090035 A 20170525; RU 2016141091 A 20180420; RU 2016141091 A3 20200121

DOCDB simple family (application)  
**EP 15002975 A 20151020**; CN 201611020449 A 20161019; JP 2016205984 A 20161020; RU 2016141091 A 20161019