

Title (en)
HYBRID EVAPORATOR

Title (de)
HYBRIDER VERDAMPFER

Title (fr)
ÉVAPORATEUR HYBRIDE

Publication
EP 3500807 B1 20230503 (DE)

Application
EP 17748788 A 20170807

Priority

- DE 102016215591 A 20160819
- EP 2017069904 W 20170807

Abstract (en)
[origin: WO2018033418A1] The invention relates to an air-conditioning machine (1), comprising an evaporator structure (10) forming a heat-transmission surface (13) and a working medium reservoir (5) containing a working fluid (7), wherein the evaporator structure (10) has a coolant duct (11), characterised in that a bubble generation structure (2) is provided, wherein the bubble generation structure (2) is arranged in the region of the working medium reservoir (5) such that it can be at least partially flooded by the working fluid (7) and/or can be wetted with the working fluid (7), and wherein the evaporator structure (10) is arranged in a spraying region of the working fluid (7) in such a way that the heat transmission surface (13) can be wetted with a working fluid film (31) of working fluid (7) that is carried along by gas bubbles (8) which can be generated and/or introduced in the working fluid (7) by the bubble generation structure (2) and which are rising in the working fluid (7), wherein the bubble generation structure (2) has a fluid-guiding pipe (3) for generating the gas bubbles (8) by means of bulk boiling, and the fluid-guiding pipe (3) and the coolant duct (11) are arranged in series behind one another in a coolant circuit.

IPC 8 full level
F25B 39/02 (2006.01); **F25B 17/08** (2006.01)

CPC (source: EP)
F25B 39/026 (2013.01); **F25B 17/08** (2013.01)

Citation (examination)
DE 102011053310 A1 20130307 - UNIV BERLIN TECH [DE]

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 2018033418 A1 20180222; DE 102016215591 A1 20180308; EP 3500807 A1 20190626; EP 3500807 B1 20230503

DOCDB simple family (application)
EP 2017069904 W 20170807; DE 102016215591 A 20160819; EP 17748788 A 20170807