

Title (en)

AIR CONDITIONING DEVICE WITH INDIRECT COOLING BY EVAPORATION

Title (de)

KLIMAANLAGE MIT INDIREKTER KÜHLUNG DURCH VERDAMPFUNG

Title (fr)

DISPOSITIF DE CLIMATISATION A REFROIDISSEMENT INDIRECT PAR EVAPORATION

Publication

EP 4302019 A1 20240110 (FR)

Application

EP 22708964 A 20220303

Priority

- FR 2102107 A 20210304
- EP 2022055490 W 20220303

Abstract (en)

[origin: WO2022184871A1] Air conditioning device with indirect cooling by evaporation, the device being intended to blow cold air into a room, the device comprising: - an air intake intended to collect air to be cooled; - a plurality of plates forming a stack, each plate comprising a dry surface opposite a moist surface, the moist surface of each plate being configured to be kept moist by water, each plate being intended to be cooled by evaporation of water from the moist surface; - a ventilation system; the device being such that: - two adjacent plates are spaced apart from each other, along a transverse axis, so as to form a channel, the channel being: either a dry channel defined by two dry surfaces of two adjacent plates, or a moist channel defined by two moist surfaces of two adjacent plates; the device being characterised in that each moist channel comprises a plurality of moist outlets divided along a lateral axis perpendicular to a longitudinal axis and to the transverse axis, and/or each dry channel comprises a plurality of air inlets distributed along a lateral axis perpendicular to a longitudinal axis and to the transverse axis.

IPC 8 full level

F24F 5/00 (2006.01); **F28C 3/08** (2006.01); **F28D 1/03** (2006.01); **F28D 5/00** (2006.01); **F28D 9/00** (2006.01); **F28F 3/08** (2006.01); **F28F 13/02** (2006.01)

CPC (source: EP US)

F24F 3/1411 (2013.01 - US); **F24F 5/0007** (2013.01 - EP); **F24F 5/0035** (2013.01 - EP US); **F28C 3/08** (2013.01 - EP); **F28D 5/02** (2013.01 - US); **F28D 1/0375** (2013.01 - EP); **F28D 5/00** (2013.01 - EP); **F28D 9/0075** (2013.01 - EP)

Citation (search report)

See references of WO 2022184871A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022184871 A1 20220909; AU 2022229835 A1 20231012; CN 117280162 A 20231222; EP 4302019 A1 20240110; FR 3120424 A1 20220909; FR 3120424 B1 20230331; JP 2024509440 A 20240301; US 2024167705 A1 20240523

DOCDB simple family (application)

EP 2022055490 W 20220303; AU 2022229835 A 20220303; CN 202280032727 A 20220303; EP 22708964 A 20220303; FR 2102107 A 20210304; JP 2023553492 A 20220303; US 202218548905 A 20220303