

Title (en)

COOLING UNIT FOR INSTALLATION UNDER A CEILING

Title (de)

KÜHLEINRICHTUNG ZUR MONTAGE UNTER EINER RAUMDECKE

Title (fr)

APPAREIL DE REFROIDISSEMENT POUR INSTALLATION AU-DESSOUS D'UN PLAFOND

Publication

**EP 3472528 A1 20190424 (DE)**

Application

**EP 17725194 A 20170509**

Priority

- DE 102016111136 A 20160617
- EP 2017061063 W 20170509

Abstract (en)

[origin: WO2017215847A1] The invention relates to an air cooler for cooling the air in rooms, in particular in storage rooms or cooling rooms in which persons can walk, which air cooler comprises: a housing (1), which has a bottom (1a), a cover (1b), which can be fastened directly and without spacing to a ceiling of the room to be cooled, and at least one side wall (1c), in which at least one air outlet (2) is arranged; at least one planar heat exchanger (3), which is arranged in the housing (1) and which lies at least substantially horizontal; and at least one fan (4) arranged in the housing (1) for sucking in air from the room to be cooled, wherein the air sucked in by the fan (4) flows through the planar heat exchanger (3) at least substantially in the vertical direction and is deflected by the fan (4) in the horizontal direction to the air outlet (2). In order to provide a highly efficient air cooler for cooling the air in large-volume storage rooms or cooling rooms, in particular storage rooms or cooling rooms in which persons can walk, which is arranged directly on a ceiling such that said air cooler can be installed in space-saving manner and which avoids the dripping of condensed water and the accumulation of dust and dirt, the fan (4) and the air outlet (2) are arranged above the heat exchanger (3) in the air cooler according to the invention.

IPC 8 full level

**F24F 1/0007** (2019.01); **F24F 1/0014** (2019.01); **F24F 1/0047** (2019.01); **F24F 1/0063** (2019.01); **F24F 1/0073** (2019.01); **F24F 13/20** (2006.01); **F24F 13/30** (2006.01); **F25D 17/06** (2006.01)

CPC (source: EP RU US)

**F24F 1/0014** (2013.01 - EP RU US); **F24F 1/0047** (2019.01 - EP RU US); **F24F 1/0063** (2019.01 - EP RU US); **F24F 1/0073** (2019.01 - EP RU US); **F24F 13/20** (2013.01 - EP RU US); **F24F 13/30** (2013.01 - EP RU US); **F25D 17/067** (2013.01 - EP US)

Citation (search report)

See references of WO 2017215847A1

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)

**DE 102016111136 A1 20171221**; CN 109416194 A 20190301; CN 109416194 B 20201211; EP 3472528 A1 20190424; EP 3472528 B1 20200219; HU E049185 T2 20200928; JP 2019522165 A 20190808; PL 3472528 T3 20200713; RU 2018146516 A 20200717; RU 2018146516 A3 20200717; RU 2731072 C2 20200828; US 2019178506 A1 20190613; WO 2017215847 A1 20171221

DOCDB simple family (application)

**DE 102016111136 A 20160617**; CN 201780037471 A 20170509; EP 17725194 A 20170509; EP 2017061063 W 20170509; HU E17725194 A 20170509; JP 2018566247 A 20170509; PL 17725194 T 20170509; RU 2018146516 A 20170509; US 201716310390 A 20170509