

Title (en)
HEAT EXCHANGER

Title (de)
WÄRMETAUSCHER

Title (fr)
ÉCHANGEUR DE CHALEUR

Publication
EP 3647711 C0 20230726 (EN)

Application
EP 18842154 A 20180614

Priority
• JP 2017149664 A 20170802
• JP 2018022761 W 20180614

Abstract (en)
[origin: EP3647711A1] There is provided a heat exchanger that can secure evaporation performance while suppressing heat transfer loss in a state where deviation of frosting progressing from a front row and deviation of refrigerant distribution from headers to each of flat tubes are present. A heat exchanger 1 includes a plurality of flat tubes 11, fins 12 provided on the flat tubes 11, and headers 13 (or 23) erected in an up-and-down direction D1 in which the flat tubes 11 are stacked, and connected to the flat tubes 11. The heat exchanger 1 functions as an evaporator that causes heat exchange between air and a refrigerant flowing into the flat tubes 11 through the headers, to evaporate the refrigerant. A front-row heat exchange element 10 including the flat tubes 11, the fins 12, and the headers 13, and a rear-row heat exchange element 20 including the flat tubes 11, the fins 12, and the headers 23 are arranged. A flow path cross-sectional area of each of the front-row headers 13 located in a front row F is smaller than a flow path cross-sectional area of each of the rear-row headers 23 located in a rear row R such that a flow velocity of the refrigerant flowing through each of the front-row headers 13 is higher than a flow velocity of the refrigerant flowing through each of the rear-row headers 23.

IPC 8 full level
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Cited by
FR3126768A1; WO2023030791A1

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