Title (en)

HIGH-PERFORMANCE ANTI-ICING EXCHANGER

Title (de)

HOCHLEISTUNGSFÄHIGER VEREISUNGSSCHUTZTAUSCHER

Title (fr)

ECHANGEUR HAUTE PERFORMANCE ANTI-GIVRE

Publication

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Application

EP 19719558 A 20190327

Priority

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- FR 2019050711 W 20190327

Abstract (en)

[origin: WO2019186071A1] The present invention relates to a heat exchanger (1) comprising fins (3) pierced with holes (30, 300, 301) surrounded by flanges (31, 310, 311), n tubes (2) passing through n holes (300) and n flanges (311), each hole (30) and its flange (31) having a diameter d1 and a height h, characterized in that the number of holes (30) is greater than n and the n flanges (310) have a height h1 comprised between 1.8 and 4.2mm. There are therefore holes (301) and flanges (311) that are unused, i.e. that do not have tubes (2) passing through them, thereby increasing the exchange area. The unused flanges act as additional obstacles to the air and may have different shapes and dimensions from the n flanges through which the tubes pass. The height h of the n flanges will define the space between the fins. The combination of the additional flanges with the greater distance between the fins makes it possible to compensate from the loss of exchange (bypass) that could result from this greater distance while significantly limiting icing in critical situations, for an equivalent power and quantity of copper.

IPC 8 full level

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