

Title (en)

FINNED HEAT EXCHANGER TUBE HAVING OPTIMIZED HEAT TRANSFER CHARACTERISTICS

Publication

**EP 0114640 B1 19880302 (EN)**

Application

**EP 84100427 A 19840117**

Priority

US 46078483 A 19830125

Abstract (en)

[origin: EP0114640A2] A metal heat exchanger tube which provides for optimized heat transfer characteristics and which is particularly adapted for use in the direct expansion shell and tube type evaporators of mechanical refrigeration systems. The metal heat exchanger tube incorporates integral external and internal fins wherein the dimensional and geometrical proportions of the surface or heat transfer areas of the external and internal fins and the cross-sectional flow area of the heat exchanger tube, in conjunction with the lead angle of the internal helical fins have been correlated in conformance with predetermined mathematical criteria in order to optimize the heat transfer capacities of the tubes, particularly when the tubes are to be employed in direct expansion evaporator of mechanical refrigeration systems.

IPC 1-7

**F28F 1/42**

IPC 8 full level

**F28F 1/42** (2006.01)

CPC (source: EP)

**F28F 1/42** (2013.01); **F28F 1/422** (2013.01)

Cited by

DE4136003A1; EP2520892A1; US7017651B1; DE4420756C1; DE4141240A1; EP0547363A1; DE3735915A1; DE4401247A1; US5675974A; DE4401247C2; DE3813040C1

Designated contracting state (EPC)

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