

Title (en)

FINNED TUBE HEAT EXCHANGER

Title (de)

RIPPENROHR-WÄRMEAUSTAUSCHER

Title (fr)

ECHANGEUR DE CHALEUR A TUBES A AILETTES

Publication

EP 0697090 A1 19960221 (DE)

Application

EP 95911195 A 19950223

Priority

- DE 9500239 W 19950223
- DE 4406966 A 19940303
- DE 19503766 A 19950204

Abstract (en)

[origin: WO9523949A1] The finned tube heat exchanger (1) has a plurality of elongated heat exchanger tubes (2) arranged parallel to one another and with a cross section, the length (L) of which is a multiple greater than its width (B). The heat exchanger tubes (2) are interconnected by fins (3) extending parallel to the direction of flow (SR) of the cooling air. Parallel adjacent air conduction grooves (7) running in the direction of flow (SR) of the cooling air, open at the fin ends (6) and in zig-zag array are made on at least one side surface of the fins (3). Said grooves are semicircular in cross section and consist of straight groove sections (8) and arc-shaped transition sections (9) steplessly interconnecting said straight sections. The groove sections may also be a component of zig-zag fin sections. Thus the groove sections still run obliquely to the longitudinal run of the fins.

IPC 1-7

F28F 3/02; F28F 1/32

IPC 8 full level

F28F 1/30 (2006.01); **F28F 1/32** (2006.01); **F28F 3/04** (2006.01)

CPC (source: EP US)

F28F 1/32 (2013.01 - EP US); **F28F 1/325** (2013.01 - EP US); **F28F 3/046** (2013.01 - EP US); **Y10S 165/505** (2013.01 - EP US)

Citation (search report)

See references of WO 9523949A1

Designated contracting state (EPC)

BE DE ES FR GB IT NL

DOCDB simple family (publication)

WO 9523949 A1 19950908; AU 1888595 A 19950918; BR 9505782 A 19960305; CA 2162051 A1 19950908; CN 1124057 A 19960605;
CZ 287995 A3 19960214; EP 0697090 A1 19960221; EP 0697090 B1 19980610; JP H08510047 A 19961022; US 5623989 A 19970429

DOCDB simple family (application)

DE 9500239 W 19950223; AU 1888595 A 19950223; BR 9505782 A 19950223; CA 2162051 A 19950223; CN 95190131 A 19950223;
CZ 287995 A 19950223; EP 95911195 A 19950223; JP 52262495 A 19950223; US 53519196 A 19960111