

Title (en)
heat exchanger with flat tubes and corrugated fins

Title (de)
Wärmeübertrager aus Flachrohren und Wellrippen

Title (fr)
échangeur de chaleur à tubes plats et ailettes ondulées

Publication
EP 1640684 A1 20060329 (DE)

Application
EP 04023018 A 20040928

Priority
EP 04023018 A 20040928

Abstract (en)
The heat transfer device consists of flat tubes (1) and corrugated ribs (5). The flat tubes, with corrugation peaks, corrugation valleys, and corrugation flanks connecting them, have a multiple recess (4, 44) in their broad sides (3), in which some of the ribs engage. The peaks of the ribs fit in the recesses (44) of one flat tube, and their valleys (21) of the adjacent flat tube.

IPC 8 full level
F28F 1/12 (2006.01)

CPC (source: EP)
F28D 1/0391 (2013.01); **F28D 1/05366** (2013.01); **F28F 1/126** (2013.01); **F28F 1/42** (2013.01); **F28F 1/426** (2013.01)

Citation (search report)
• [XY] DE 388044 C 19240108 - FRANK HERMAN STOLP
• [Y] US 2011853 A 19350820 - EMMONS WILLARD O
• [A] FR 1259266 A 19610421 - SERCK RADIATORS LTD

Cited by
DE102006037302A1; CN111256393A; CN102109293A; US2019041140A1; US8683690B2; US8438728B2; US7921559B2; US8726508B2; DE102008013018A1

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