

Title (en)

Heat exchanger having several heat exchanging portions

Title (de)

Wärmetauscher mit mehreren Wärmeaustauschteilen

Title (fr)

Echangeur de chaleur comportant plusieurs portions d'échange de chaleur

Publication

**EP 1195568 A1 20020410 (EN)**

Application

**EP 02000277 A 19980316**

Priority

- EP 98104696 A 19980316
- JP 6323797 A 19970317

Abstract (en)

A ratio (Nc/Lc), in a condenser core portion (2), of the number (Nc) of louvers (220) to a width (Lc) of a condenser cooling fin (22), and a ratio (Nr/Lr), in a radiator core portion (3), of the number (Nr) of louvers to a width (Lr) of a radiator cooling fin (32) satisfy that the ratio in one core portion, out of the condenser and the radiator core portions, a required radiation amount of which is larger than that of the other core portion is larger than the ratio in the other core portion. Thus, in the core portion having a small required radiation amount, the number of louvers relative to the width of the cooling fin is small thereby decreasing the heat transfer ratio. However, by this, the air flow resistance in this core portion decreases thereby increasing an air flow amount. Thus, the radiation amount of the core portion having a large required radiation amount increases.

IPC 1-7

**F28D 1/04; F28F 1/12**

IPC 8 full level

**F01P 3/18** (2006.01); **B60H 1/32** (2006.01); **F28D 1/04** (2006.01); **F28F 1/12** (2006.01); **F28F 1/30** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP)

**F28D 1/0435** (2013.01); **F28F 1/128** (2013.01); **F28D 2021/0084** (2013.01); **F28D 2021/0094** (2013.01); **F28F 2215/02** (2013.01)

Citation (applicant)

- EP 0367078 A1 19900509 - SANDEN CORP [JP]
- JP H03177795 A 19910801 - SHOWA ALUMINUM CORP

Citation (search report)

- [E] EP 0881450 A1 19981202 - ZEXEL CORP [JP]
- [A] US 5529116 A 19960625 - SASAKI HIRONAKA [JP], et al
- [A] EP 0367078 A1 19900509 - SANDEN CORP [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 594 (M - 1703) 14 November 1994 (1994-11-14)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0866298 A2 19980923; EP 0866298 A3 19990616; EP 0866298 B1 20030521;** DE 69814717 D1 20030626; DE 69814717 T2 20040318;  
EP 1195566 A1 20020410; EP 1195566 B1 20140108; EP 1195567 A1 20020410; EP 1195567 B1 20110824; EP 1195568 A1 20020410;  
EP 1195568 B1 20140212; JP 3855346 B2 20061206; JP H10253276 A 19980925

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