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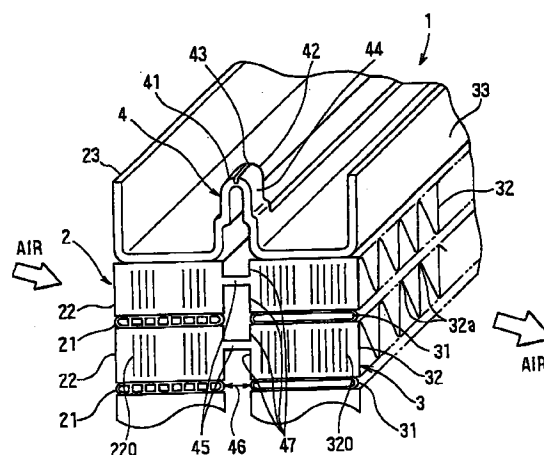
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(54) Heat exchanger having several heat exchanging portions

(57) A ratio (N_c/L_c), in a condenser core portion (2), of the number (N_c) of louvers (220) to a width (L_c) of a condenser cooling fin (22), and a ratio (N_r/L_r), in a radiator core portion (3), of the number (N_r) of louvers to a width (L_r) 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.

FIG. 1





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 98 10 4696

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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A	* column 3, line 17 - line 23 * * column 6, line 47 - column 7, line 5; figures 2-4 *	4,5	

D,A	EP 0 431 917 A (SHOWA ALUMINIUM CO LTD) 12 June 1991 * abstract; figures *	1-11	

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A	US 5 311 935 A (FUKUOKA MIKIO ET AL) 17 May 1994 * column 3, line 41 - line 49; figures 1,4,8 *	1,5,7,9	

A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 594 (M-1703), 14 November 1994 -& JP 06 221787 A (NIPPONDENSO CO LTD), 12 August 1994 * abstract; figures *	1,7,9	TECHNICAL FIELDS SEARCHED (Int.Cl.6) F28D F28F

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 April 1999	Examiner Mootz, F
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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