

Title (en)  
HEAT EXCHANGER, HEAT EXCHANGER MANUFACTURING METHOD, AND AIR CONDITIONER

Title (de)  
WÄRMETAUSCHER, WÄRMETAUSCHERHERSTELLUNGSVERFAHREN UND KLIMAAANLAGE

Title (fr)  
ÉCHANGEUR DE CHALEUR, PROCÉDÉ DE FABRICATION ET CLIMATISEUR

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Application  
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Abstract (en)  
The object of the present invention is to provide a plate fin heat exchanger that achieves better heat transfer efficiency by both making the diameter of the heat transfer tubes on the liquid side of the heat exchanger smaller than the diameter of the heat transfer tubes on the gaseous side and curbing the decline in the heat transfer rate at the outside of the heat transfer tubes that results from deviating from the optimum dimensional ratio between the tube diameter and the fin width. It is also the object of the present invention to provide a manufacturing that is well-suited to such a heat exchanger. The heat exchanger (1) is provided with a plurality of plate fins (2) that are arranged with a prescribed spacing there-between in the thickness direction thereof and a plurality of heat transfer tubes (3) that are installed in such a manner as to pass through the plate fins (2) in said thickness direction of the plate fins (2). As shown in Figures 4 and 5, the plate fins (2) are shaped such that the width thereof decreases from a fin width W1 to a fin width W2 in a continuous manner as one moves from one end to the other. The heat transfer tubes (3) are provided in at least two different diameter sizes, each individual heat transfer tube (3) having only one of said diameter sizes. The larger diameter heat transfer tubes are arranged in the upper portion of the heat exchanger (1) and the smaller diameter heat transfer tubes are arranged in the lower portion of the heat exchanger (1). <IMAGE>

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IPC 8 full level  
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