Title (en)

HEAT EXCHANGER AND INTEGRATED-TYPE HEAT EXCHANGER

Title (de

WÄRMETAUSCHER UND INTEGRIERTER WÄRMETAUSCHER

Title (fr)

ECHANGEUR DE CHALEUR ET ECHANGEUR DE CHALEUR DE TYPE INTEGRE

Publication

EP 1998133 A1 20081203 (EN)

Application

EP 07714836 A 20070223

Priority

- JP 2007053365 W 20070223
- JP 2006055187 A 20060301

Abstract (en)

A heat exchanger 10 cools an air-conditioning refrigerant by means of cooling air. The heat exchanger 10 includes a first heat exchanger core 20 and a second heat exchanger core 30 placed forward and backward with respect to a flowing direction of the cooling air 60. The heat exchanger 10 further includes a first header tank 40 that is provided in a lower portion of the heat exchanger, and has two independent tank portions 43 and 44, one of the two tank portions located on a leeward side of the cooling air 60 being in communication with a refrigerant-inlet side of the second heat exchanger core 30, and the other one of the tank portions located on a windward side being in communication of a refrigerant-outlet side of the first heat exchanger core 20, the first header tank 40 introducing the refrigerant from the tank portion 43 located on the leeward side, and discharging the refrigerant from the tank portion 44 located on the windward side. The heat exchanger 10 also includes a second header tank 50 that is provided in an upper portion of the heat exchanger, that is in communication with a refrigerant-outlet side of the second heat exchanger core 30 and a refrigerant-inlet side of the first heat exchanger core 20, and that flows the refrigerant having passed through the second heat exchanger core 30 into the first heat exchanger core 20.

IPC 8 full level

F28F 9/26 (2006.01)

CPC (source: EP US)

F28D 1/0435 (2013.01 - EP US); F28D 1/05391 (2013.01 - EP US); F28F 9/0214 (2013.01 - EP US); F28F 9/0224 (2013.01 - EP US); F28D 2021/0084 (2013.01 - EP US)

Citation (search report)

See references of WO 2007099868A1

Cited by

GB2581478A; GB2581478B; CN107003073A; EP3156752A4; US9874405B2; WO2014131756A1; EP4033189A1; IT202100000920A1; EP3805651A4; EP4279850A3

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1998133 A1 20081203; JP 2007232287 A 20070913; US 2009050298 A1 20090226; WO 2007099868 A1 20070907

DOCDB simple family (application)

EP 07714836 Á 20070223; JP 2006055187 A 20060301; JP 2007053365 W 20070223; US 28121207 A 20070223