

Title (en)  
CHARGE AIR / COOLANT COOLER

Title (de)  
LADELUFT/KÜHLMITTEL-KÜHLER

Title (fr)  
REFROIDISSEUR D'AIR DE SURALIMENTATION / REFRIGERANT

Publication  
**EP 1673583 B1 20131211 (DE)**

Application  
**EP 04790215 A 20041008**

Priority  
• EP 2004011278 W 20041008  
• DE 10347677 A 20031009

Abstract (en)  
[origin: WO2005036082A1] The invention relates to a soldered cooler block, especially for a charge air cooler/coolant cooler, which is constructed in a packet-type manner. Cooling channels (2) for a liquid coolant are arranged in said cooler block in a crossways manner in first layers and gas channels (1) for a gas which is to be cooled are arranged in a crossways manner in second layers. The cooling channels (2) are respectively formed by two wall areas (3) which are arranged at a distance and by intermediate strips and connection strips (4, 5) comprising groove profiles.

IPC 8 full level  
**F28D 1/03** (2006.01); **F28D 9/00** (2006.01)

CPC (source: EP KR US)  
**F28D 1/03** (2013.01 - KR); **F28D 1/0366** (2013.01 - EP US); **F28D 9/00** (2013.01 - KR); **F28D 9/0062** (2013.01 - EP US);  
**F28D 2021/0082** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005036082 A1 20050421**; DE 10347677 A1 20050504; EP 1673583 A1 20060628; EP 1673583 B1 20131211;  
KR 20070048640 A 20070509; PL 1673583 T3 20140530; US 2007209785 A1 20070913; US 8689858 B2 20140408

DOCDB simple family (application)  
**EP 2004011278 W 20041008**; DE 10347677 A 20031009; EP 04790215 A 20041008; KR 20067006781 A 20060407; PL 04790215 T 20041008;  
US 57484604 A 20041008