

Title (en)  
HEAT EXCHANGER

Title (de)  
WÄRMETAUSCHER

Title (fr)  
ÉCHANGEUR DE CHALEUR

Publication  
**EP 2906896 A4 20160727 (EN)**

Application  
**EP 13808627 A 20130329**

Priority  
• US 201213536287 A 20120628  
• US 2013034535 W 20130329

Abstract (en)  
[origin: WO2014003865A1] A heat exchanger includes a first header tank, a second header tank, and a core. The core is positioned between the first header tank and the second header tank. The core includes a plurality of tubes, a set of cooling fins and a plurality of channels. Each tube of the plurality of tubes provides fluid communication between the first header tank and the second header tank. The set of cooling fins are located between the heat exchange tubes of the plurality of tubes to increase a heat exchange area. The plurality of channels is defined by the plurality of tubes and the set of cooling fins. The channels of the plurality of channels are operative for directing a flow of air through the core such that a flow of air enters a front face of the core in a first direction and is generally directed toward a plane.

IPC 8 full level  
**F28F 9/013** (2006.01); **B60H 1/32** (2006.01); **F28D 1/053** (2006.01); **F28D 5/00** (2006.01); **F28D 21/00** (2006.01); **F28F 1/02** (2006.01); **F28F 1/12** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP)  
**F28D 1/05366** (2013.01); **F28F 1/02** (2013.01); **F28D 2021/0084** (2013.01); **F28D 2021/0085** (2013.01); **F28D 2021/0089** (2013.01); **F28D 2021/0094** (2013.01); **F28F 1/126** (2013.01)

Citation (search report)  
• [XY] KR 20100024686 A 20100308 - HALLA CLIMATE CONTROL CORP [KR]  
• [X] EP 1748271 A1 20070131 - PORSCHE AG [DE]  
• [X] EP 1795848 A1 20070613 - GAC CORP [JP]  
• [YA] WO 2006019344 A1 20060223 - SCANIA CV ABP [SE], et al  
• [X] US 5697435 A 19971216 - STICKFORD JR GEORGE [US], et al  
• [Y] US 5765630 A 19980616 - BLOOMER STEPHEN FRANCIS [CA]  
• [A] DE 325832 C 19200921 - NORDDEUTSCHE KUEHLERFABRIK G M  
• See references of WO 2014003865A1

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