

Title (en)  
CHARGE-AIR/COOLANT RADIATOR

Title (de)  
LADELUFT-/KÜHLMITTEL-KÜHLER

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

Publication  
**EP 1687580 B1 20170802 (DE)**

Application  
**EP 04818135 A 20041110**

Priority  
• EP 2004012719 W 20041110  
• DE 10352881 A 20031110

Abstract (en)  
[origin: WO2005045344A1] Disclosed is a heat exchanger, particularly a charge-air/coolant radiator (1), having a disk-type structure. Said heat exchanger comprises a plurality of disks (2) which are penetrated by a coolant and a fluid that is to be cooled. The inlet zone and/or outlet zone for the fluid that is to be cooled is/are expanded at least at the discharge end or delivery end.

IPC 8 full level  
**F28D 9/00** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP US)  
**F28D 9/005** (2013.01 - EP US); **F28F 9/026** (2013.01 - EP US); **F28D 2021/0082** (2013.01 - EP US); **F28D 2021/0089** (2013.01 - EP US)

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**WO 2005045344 A1 20050519**; BR PI0416363 A 20070313; BR PI0416363 B1 20181030; CN 1875235 A 20061206; CN 1875235 B 20101013; DE 10352881 A1 20050609; EP 1687580 A1 20060809; EP 1687580 B1 20170802; JP 2007510883 A 20070426; JP 4653756 B2 20110316; US 2007084592 A1 20070419; US 7717165 B2 20100518

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**EP 2004012719 W 20041110**; BR PI0416363 A 20041110; CN 200480032669 A 20041110; DE 10352881 A 20031110; EP 04818135 A 20041110; JP 2006538782 A 20041110; US 57903904 A 20041110