

Title (en)  
HEAT EXCHANGER MODULE WHICH IS INTENDED, IN PARTICULAR, FOR MOTOR VEHICLES

Title (de)  
INSBESONDERE FÜR KRAFTFAHRZEUGE BESTIMMTES WÄRMETAUSCHERMODUL

Title (fr)  
MODULE D ECHANGE DE CHALEUR, EN PARTICULIER POUR LES VEHICULES AUTOMOBILES

Publication  
**EP 1558885 A2 20050803 (FR)**

Application  
**EP 03795048 A 20030912**

Priority  
• FR 0302710 W 20030912  
• FR 0211325 A 20020912

Abstract (en)  
[origin: WO2004025204A2] The invention relates to a heat exchanger module comprising a main heat exchanger (1) and at least one secondary heat exchanger (2). According to the invention, the main heat exchanger (1) and the secondary heat exchanger (2) comprise (i) a body (3, 7) which is equipped with fluid circulation tubes (22, 23) and (ii) at least one collecting box (5, 8) with a manifold (35) which is perforated with holes for receiving the tubes (22) from the body (3). The inventive module also comprises cooling fins (11). According to the invention, the collecting box or boxes (5) of the main exchanger comprise at least one projecting element (28) which extends in the direction of the secondary exchanger(s) in order to co-operate with the collecting box or boxes (5, 8) of the secondary exchanger(s) and/or with said fins (11), such as to form the module.

IPC 1-7  
**F28D 1/04**

IPC 8 full level  
**F28D 1/04** (2006.01); **F28F 1/02** (2006.01); **F28F 1/32** (2006.01); **F28F 9/00** (2006.01); **F28F 9/02** (2006.01); **F28F 21/06** (2006.01)

CPC (source: EP)  
**F28D 1/0435** (2013.01); **F28F 1/025** (2013.01); **F28F 1/32** (2013.01); **F28F 9/002** (2013.01); **F28F 9/0221** (2013.01); **F28F 21/067** (2013.01); **F28F 2215/02** (2013.01); **F28F 2215/12** (2013.01)

Citation (search report)  
See references of WO 2004025204A2

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 PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004025204 A2 20040325**; **WO 2004025204 A3 20040506**; AU 2003276339 A1 20040430; AU 2003276339 A8 20040430; EP 1558885 A2 20050803; EP 1558885 B1 20160224; FR 2844586 A1 20040319; FR 2844586 B1 20050624

DOCDB simple family (application)  
**FR 0302710 W 20030912**; AU 2003276339 A 20030912; EP 03795048 A 20030912; FR 0211325 A 20020912