

Title (en)
Heat exchanger with serpentine structure

Title (de)
Wärmeübertrager in Serpentinbauweise

Title (fr)
Echangeur de chaleur à structure en serpentin

Publication
EP 1411310 B1 20071205 (DE)

Application
EP 03020914 A 20030916

Priority
DE 10248665 A 20021018

Abstract (en)
[origin: EP1411310A2] Heat exchanger has a component (7) containing a distributor channel (8) and a component (9) containing a collector channel (10) extending over the depth (Z) of all the cooling pipes (4, 5, 6). A deviating chamber (13.1) is formed in the component. Preferred Features: At least one of the cooling pipes has a reduced cross-section. Cooling air flows through the cooling pipe (4) having a small cross-section, then to the next average size cooling pipe (5) and finally to the largest cooling pipe (6). Coolant only flows through the largest pipe. The component containing the distributor channel has a peripheral wall and a longitudinal separating wall extending over two neighboring cooling pipes.

IPC 8 full level
F28D 1/047 (2006.01); **F28F 1/02** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP US)
F28D 1/0478 (2013.01 - EP US); **F28F 1/022** (2013.01 - EP US); **F28F 9/0202** (2013.01 - EP US)

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Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1411310 A2 20040421; EP 1411310 A3 20051228; EP 1411310 B1 20071205; DE 10248665 A1 20040429; DE 50308721 D1 20080117; US 2004194934 A1 20041007; US 7069980 B2 20060704

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EP 03020914 A 20030916; DE 10248665 A 20021018; DE 50308721 T 20030916; US 68493403 A 20031014