

Title (en)
Plate heat exchanger without casing

Title (de)
Wärmetauscher in gehäuseloser Plattenbauweise

Title (fr)
Echangeur de chaleur à plaques sans enveloppe

Publication
EP 1491837 B1 20090701 (DE)

Application
EP 04009615 A 20040423

Priority
DE 10328638 A 20030626

Abstract (en)
[origin: EP1491837A2] The motor vehicle exhaust gas heat exchanger has a flow switching valve (20) in one manifold (4,5). At least the main part of the gas stream passing through the cooled flat tube (3) or through at least one non-cooled flat tube is steerable via the valve. Separation between the cooled tubes and at least uncooled tube is through a closure for the channels in at least one of the plates (1,2).

IPC 8 full level
F28D 9/00 (2006.01); **F01N 3/04** (2006.01); **F02M 25/07** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP US)
F02M 26/23 (2016.02 - EP US); **F02M 26/26** (2016.02 - EP US); **F02M 26/28** (2016.02 - EP US); **F28D 9/0043** (2013.01 - EP US); **F28F 27/02** (2013.01 - EP US); **F01N 2240/02** (2013.01 - EP US); **F28D 21/0003** (2013.01 - EP US); **F28F 2250/06** (2013.01 - EP US); **F28F 2250/104** (2013.01 - EP US)

Cited by
EP1801407A4; DE102015203471A1; US7243707B2; US7836868B2; US8985198B2; WO2008113652A1; WO2006084867A1; WO2005071342A1; EP1626238A1

Designated contracting state (EPC)
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DOCDB simple family (application)
EP 04009615 A 20040423; DE 10328638 A 20030626; DE 502004009681 T 20040423; US 86529504 A 20040609