

Title (en)

THERMAL ENERGY MANAGEMENT SYSTEM FOR A VEHICLE ENGINE PROVIDED WITH A TIMEDELAY SWITCHING MEANS

Title (de)

WÄRMEENERGIEVERWALTUNGSSYSTEM FÜR EINEN FAHRZEUGMOTOR, DAS MIT EINEM ZEITVERZÖGERUNGSSCHALTMITTEL VERSEHEN IST

Title (fr)

SYSTEME DE GESTION DE L'ENERGIE THERMIQUE D'UN MOTEUR THERMIQUE DE VEHICULE COMPORTANT DES MOYENS DE COMMUTATION TEMPORISEE

Publication

EP 1828560 B1 20110525 (FR)

Application

EP 04816481 A 20041223

Priority

FR 2004003360 W 20041223

Abstract (en)

[origin: WO2006070080A1] The inventive management system comprises a high-temperature circuit (12) provided with a high-temperature cooling radiator (20), a low-temperature circuit (14) provided with a low-temperature cooling radiator (30, 30a, 30b), wherein the same heat carrier flow runs through said circuits. Said system also comprises a radiator (36) attributable to first switching means (52) and to second switching means (54) for switching the system from a connected configuration, in which the attributable radiator (36) is connected to the low-temperature circuit (14), to a disconnected configuration, in which the attributable radiator is connected to the high-temperature circuit (12), and vice-versa. The switching means are sequentially actuated after a time delay during switching from the disconnected configuration to the connected configuration and/or from the connected configuration to the disconnected configuration in order to minimise thermal shocks in the attributable cooling radiator (36).

IPC 8 full level

F01P 7/16 (2006.01)

CPC (source: EP)

F01P 7/165 (2013.01); **F01P 2003/182** (2013.01); **F01P 2003/187** (2013.01); **F01P 2005/105** (2013.01); **F01P 2005/125** (2013.01); **F01P 2007/146** (2013.01); **F01P 2060/02** (2013.01); **F01P 2060/04** (2013.01); **F01P 2060/14** (2013.01)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2006070080 A1 20060706; AT E511002 T1 20110615; EP 1828560 A1 20070905; EP 1828560 B1 20110525; JP 2008525701 A 20080717; JP 4503652 B2 20100714

DOCDB simple family (application)

FR 2004003360 W 20041223; AT 04816481 T 20041223; EP 04816481 A 20041223; JP 2007547556 A 20041223