

Title (en)
Cooling system for motor vehicle

Title (de)
Kühlsystem für Kraftfahrzeug

Title (fr)
Système de refroidissement pour véhicule à moteur

Publication
EP 2028373 A2 20090225 (EN)

Application
EP 08252638 A 20080806

Priority
JP 2007216436 A 20070822

Abstract (en)
A cooling system includes a cooling circuit (R2), a pump (13; 32), an electric fan (11; 31), an electric motor (12) connected with the electric fan (11; 31), and a controller (20) for controlling the electric motor (12). The pump (13; 32) is capable of being driven by the electric fan (11; 31) that receives a ram airflow generated when the motor vehicle is running. The controller (20) controls the electric motor (12) to be shifted between in a first operation state where electric power is supplied to the motor (12) and in a second operation state where no electric power is supplied to the motor (12). The pump (13; 32) is driven by a rotating torque of the ram airflow and a rotating torque of the motor (12) in the first operation state, and the pump (13; 32) is driven by the rotating torque generated by the ram airflow without the rotating torque of the motor (12) in the second operation state.

IPC 8 full level
F04D 13/12 (2006.01); **F04D 25/16** (2006.01)

CPC (source: EP US)
F04D 13/027 (2013.01 - EP); **F04D 13/06** (2013.01 - EP US); **F04D 13/12** (2013.01 - EP US); **F04D 25/06** (2013.01 - EP US); **F04D 25/16** (2013.01 - EP US)

Citation (applicant)
• JP 2000333411 A 20001130 - MITSUBA CORP
• JP 2002300751 A 20021011 - MITSUBA CORP
• JP 2004132277 A 20040430 - TOYO RADIATOR CO LTD
• JP 2005315224 A 20051110 - YAMADA SEISAKUSHO KK
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Cited by
EP3284950A1; EP3401545A1; US10744853B2; TWI663337B

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
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