

Title (en)
COOLING CONTROL DEVICE

Title (de)
KÜHLUNGSSTEUERUNGSVORRICHTUNG

Title (fr)
DISPOSITIF DE RÉGULATION DE REFROIDISSEMENT

Publication
EP 3358162 A4 20180808 (EN)

Application
EP 16851078 A 20160908

Priority
• JP 2015194807 A 20150930
• JP 2016076458 W 20160908

Abstract (en)
[origin: EP3358162A1] A cooling control device includes a coolant pump being driven at an internal combustion engine to supply a coolant of the internal combustion engine, a heat exchanger being provided at each of plural flow paths that are formed in parallel to one another, a flow amount control valve controlling the coolant being supplied to the plural flow paths, and a control portion controlling the flow amount control valve. The control portion performs a control in a first supply mode in which the coolant is supplied to a first flow path, and a second supply mode in which the coolant is supplied to a second flow path during a supply of the coolant to the first flow path. The control portion operates a switching control shifting to the second supply mode temporarily in a state of being in the first supply mode, and returning to the first supply mode.

IPC 8 full level
F01P 7/14 (2006.01); **F01P 7/16** (2006.01); **F01P 11/08** (2006.01)

CPC (source: EP US)
F01P 3/00 (2013.01 - US); **F01P 5/10** (2013.01 - US); **F01P 7/16** (2013.01 - US); **F01P 7/165** (2013.01 - EP US); **F02M 26/28** (2016.02 - EP US); **F01P 11/08** (2013.01 - EP US); **F01P 2007/146** (2013.01 - EP US); **F01P 2037/00** (2013.01 - US); **F01P 2037/02** (2013.01 - EP US); **F01P 2060/04** (2013.01 - EP US); **F01P 2060/16** (2013.01 - EP US)

Citation (search report)
• [XAI] DE 10311188 A1 20040923 - ATT AUTOMOTIVETHERMOTECH GMBH [DE]
• [XI] US 6668764 B1 20031230 - HENDERSON NOEL [GB], et al
• [XI] EP 1233157 A1 20020821 - PEUGEOT CITROEN AUTOMOBILES SA [FR]
• [A] WO 2008049624 A2 20080502 - AUDI AG [DE], et al
• See references of WO 2017056904A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3358162 A1 20180808; **EP 3358162 A4 20180808**; CN 107923302 A 20180417; JP 2017067015 A 20170406; US 2018252144 A1 20180906; WO 2017056904 A1 20170406

DOCDB simple family (application)
EP 16851078 A 20160908; CN 201680050069 A 20160908; JP 2015194807 A 20150930; JP 2016076458 W 20160908; US 201615753731 A 20160908