

Title (en)  
COOLING CONTROL DEVICE

Title (de)  
KÜHLUNGSSTEUERUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF DE COMMANDE DE REFROIDISSEMENT

Publication  
**EP 3150822 A1 20170405 (EN)**

Application  
**EP 16190424 A 20160923**

Priority  
JP 2015194808 A 20150930

Abstract (en)  
A cooling control device includes: a cooling liquid pump (WP) whose rotational speed is set in accordance with a rotational speed of an engine (E); a cooling flow path (F3) and a heat exchanger (3) which cool cooling liquid discharged from the engine; a flow rate control valve (V) which is provided in the cooling flow path, changes an opening degree by driving a motor (VM), and adjusts a flow rate of the cooling liquid; and a control portion (10) which feedback-controls the opening degree of the flow rate control valve based on a difference between a temperature of the cooling liquid and a target temperature of the cooling liquid, and corrects a gain of the feedback control in accordance with the rotational speed of the engine.

IPC 8 full level  
**F01P 7/16** (2006.01)

CPC (source: CN EP US)  
**F01P 7/14** (2013.01 - CN US); **F01P 7/16** (2013.01 - CN); **F01P 7/164** (2013.01 - US); **F01P 7/167** (2013.01 - EP US);  
**F01P 2007/146** (2013.01 - CN US); **F01P 2023/08** (2013.01 - US); **F01P 2025/08** (2013.01 - CN); **F01P 2025/30** (2013.01 - US);  
**F01P 2025/64** (2013.01 - CN EP US)

Citation (applicant)  
• JP 2014156828 A 20140828 - MIKUNI KOGYO KK  
• JP 2010190142 A 20100902 - HITACHI AUTOMOTIVE SYSTEMS LTD

Citation (search report)  
• [XYI] EP 1279800 A2 20030129 - TOYOTA MOTOR CO LTD [JP], et al  
• [Y] WO 0175281 A1 20011011 - BOSCH GMBH ROBERT [DE], et al  
• [A] EP 1270893 A2 20030102 - AISAN IND [JP], et al  
• [A] WO 2014125929 A1 20140821 - MIKUNI KOGYO KK [JP] & EP 2957742 A1 20151223 - MIKUNI KOGYO KK [JP]

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 3150822 A1 20170405**; CN 106560599 A 20170412; JP 2017067016 A 20170406; US 2017089251 A1 20170330

DOCDB simple family (application)  
**EP 16190424 A 20160923**; CN 201610875898 A 20160930; JP 2015194808 A 20150930; US 201615281177 A 20160930