

Title (en)

Glow plug energization control unit

Title (de)

Anregungssteuerungseinheit für Zündkerzen

Title (fr)

Unité de contrôle d'excitation de bougie de préchauffage

Publication

EP 2489871 A2 20120822 (EN)

Application

EP 12156200 A 20120220

Priority

JP 2011034337 A 20110221

Abstract (en)

[Objective] To provide a glow plug energization control unit which can stably operate a function of de-energizing an energizing FET when an ON failure occurs in the energizing FET. [Means for Solution] A GCU 31 includes an energizing FET 51 and a reverse connection protection FET 41, and a parasitic diode 411 which enables a glow plug 1 to be energized by a power supply VA is formed in the reverse connection protection FET 41 in a reverse direction with respect to a parasitic diode formed in the energizing FET. The GCU 31 includes a switch 71 which can switch the reverse connection protection FET 41 between ON and OFF, and a fuse 81 which disconnects an electrical connection between the power supply VA and the energizing FET 51 owing to heat generation of the reverse connection protection FET 41 through feeding an electrical current to the parasitic diode 411. When an ON failure of the energizing FET 51 is detected, the reverse connection protection FET 41 is caused to generate heat by the reverse connection protection FET 41 being turned off to cause current to flow through the parasitic diode 411.

IPC 8 full level

F02P 19/02 (2006.01)

CPC (source: EP KR)

F02P 19/027 (2013.01 - EP KR); **F23Q 7/22** (2013.01 - KR)

Citation (applicant)

- WO 2008108330 A1 20080912 - BOSCH CORP [JP], et al
- DE 102005040308 B4 20090507 - MAGNA ELECTRONICS EUROP GMBH & [DE]

Cited by

EP3109458A1; US9816477B2; EP3021485B1

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)

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