

Title (en)

A glow plug controller for vehicles

Title (de)

Glühkerzensteuereinheit für Fahrzeuge

Title (fr)

Contrôleur de bougie de préchauffage pour véhicules

Publication

EP 2224124 A1 20100901 (EN)

Application

EP 09100156 A 20090227

Priority

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Abstract (en)

The invention relates to a glow plug controller (10) and a method to operate a plurality of glow plugs (20, 21, 22, 23) such a way that the glow plugs (20, 21, 22, 23) generate lower EMI levels. The glow plug controller (10) receives a set of engine parameters (18) and generates PWM signals (31, 32, 33, and 34) to control each of the glow plugs (20, 21, 22, and 23). When the PWM signals (31, 32, 33, and 34) have more than 50% duty cycle, spikes appear in the current waveform whenever three or more of the PWM signals (31, 32, 33, 34) have on periods. This results in EMI. To reduce the peak level of the energy which represents the EMI, jitter is added to the PWM signals by varying the frequency of the PWM signals. The jitter in the PWM signals will spread the energy in the spikes over a range of frequency components, bringing down the peak level of the energy, thereby reducing the peak EMI level.

IPC 8 full level

F02P 19/02 (2006.01)

CPC (source: EP)

F02P 19/022 (2013.01); **F02D 2041/2027** (2013.01); **F02P 19/023** (2013.01)

Citation (applicant)

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Citation (search report)

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