

Title (en)

A LIQUID FUEL PORTABLE HEATER HAVING A THERMOELECTRIC GENERATOR, AND ACCORDING CONTROL METHOD

Title (de)

TRANSPORTABLER FLÜSSIGBRENNSTOFF-HEIZER MIT THERMOELEKTRISCHEN GENERATOR, UND ENTSPRECHENDES VERFAHREN

Title (fr)

RECHAUD PORTATIF Á COMBUSTIBLE LIQUID AYANT UN GÉNÉRATEUR THERMOÉLECTRIQUE, ET PROCÉDÉ CORRESPONDANT

Publication

**EP 2918909 A1 20150916 (EN)**

Application

**EP 15155313 A 20150217**

Priority

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Abstract (en)

A liquid fuel portable heater comprises: a combustion chamber having a fuel inlet with a nebuliser (13); an electric pump (10) having an inlet (11) for suctioning said liquid fuel from a tank (6), and an outlet (12) connected to said nebuliser (13); a control unit (20) configured so that, when the heater is turned on, said control unit (20) supplies the electric pump (10) with a sequence of pulses with a non-zero voltage, and pause intervals with a substantially zero voltage alternating with said pulses, wherein the average duration of the pulses is less than the average duration of the pause intervals. The heater may furthermore comprise a thermoelectric power generator. In addition, a method for controlling an electric power supply of a fuel electric pump (10) of a liquid fuel portable heater by means of an electric control unit (20) configured to control said electric power supply, comprising a step of electrically supplying said electric pump (10), once the heater is turned on, with a sequence of pulses with a non-zero voltage, and pause intervals with a substantially zero voltage alternating with said pulses, wherein the average duration of the pulses is less than the average duration of the pause intervals.

IPC 8 full level

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Citation (search report)

- [XYI] DE 102010028736 A1 20111110 - EBERSPAECHER J GMBH & CO [DE]
- [I] US 6987329 B1 20060117 - SMITH C W SINJIN [US], et al
- [YA] DE 4415513 A1 19940929 - QUAAS HANS RAINER DIPL ING [DE]

Cited by

CN109579076A; WO2020124928A1

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