

Title (en)

High efficiency fuel injection system for gas appliances

Title (de)

Einspritzsystem mit hohem Wirkungsgrad für Gasgeräte

Title (fr)

Système d'injection à haute efficacité pour appareils à gaz

Publication

EP 1808642 A3 20110323 (EN)

Application

EP 06012836 A 20060622

Priority

US 33172906 A 20060112

Abstract (en)

[origin: US2006204911A1] A unique control system is provided for optimizing and effecting efficient combustion of gas appliances by controlling the proportion of fuel and air variables. The control system provides continuous active feedback of the combustion event by detecting the level of exhaust gases such as CO₂ to trigger the modulation of a gas valve. Based upon the detected level, a control signal is generated by the system and received by a processor to adjust pressure and gas flow for future combustion events. Accordingly, the control system varies the proportion of air to fuel inflow to a prescribed optimum range thereby achieving efficient fuel combustion.

IPC 8 full level

F23N 5/00 (2006.01)

CPC (source: EP US)

F23N 1/022 (2013.01 - EP US); **F23N 5/003** (2013.01 - EP US); **F23N 5/006** (2013.01 - EP US); **F23N 2223/08** (2020.01 - EP US); **F23N 2223/10** (2020.01 - EP US); **F23N 2223/22** (2020.01 - EP US); **F23N 2227/20** (2020.01 - EP US); **F23N 2235/16** (2020.01 - EP US); **F23N 2241/02** (2020.01 - EP US); **F23N 2241/04** (2020.01 - EP US); **F23N 2241/06** (2020.01 - EP US); **F23N 2241/08** (2020.01 - EP US); **F23N 2900/05002** (2013.01 - EP US)

Citation (search report)

- [X] US 4375950 A 19830308 - DURLEY III BENTON A [US]
- [X] US 4568266 A 19860204 - BONNE ULRICH [US]
- [A] DE 10140388 A1 20030403 - WEBASTO THERMOSYSTEME GMBH [DE]
- [A] WO 0229326 A1 20020411 - SWEDISH BIOBURNER SYST AB [SE], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

US 2006204911 A1 20060914; EP 1808642 A2 20070718; EP 1808642 A3 20110323

DOCDB simple family (application)

US 33172906 A 20060112; EP 06012836 A 20060622