

Title (en)  
ULTRASONIC ATOMISER

Publication  
**EP 0421439 A3 19920318 (DE)**

Application  
**EP 90119084 A 19901004**

Priority  
DE 3933300 A 19891005

Abstract (en)  
[origin: EP0421439A2] An ultrasonic atomiser, particularly for a heating device operated with liquid fuel, can be switched between a low resonant frequency and a high resonant frequency by means of a switchable excitation circuit, the former being used for good cold-start conditions and the latter being used for good combustion in hot operation of the heating device. In a particularly preferred embodiment, the excitation circuit exhibits a phase-locked loop circuit, the voltage-controlled oscillator (VCO) of which and a frequency filter being switched over to the low or the high resonant excitation frequency. In a particularly preferred embodiment, the excitation circuit exhibits a phase-locked loop circuit, the voltage-controlled oscillator (VCO) of which and a frequency filter being switched to the low or the high resonant excitation frequency. <IMAGE>

IPC 1-7  
**B06B 1/02**; B05B 17/06

IPC 8 full level  
**B05B 17/06** (2006.01); **B06B 1/02** (2006.01)

CPC (source: EP)  
**B05B 17/0607** (2013.01); **B06B 1/0269** (2013.01); **B06B 2201/77** (2013.01)

Citation (search report)  
• [A] US 3158928 A 19641201 - DE PRISCO CARMINE F, et al  
• [A] US 3885902 A 19750527 - FUJIEDA HIROSHI, et al  
• [A] EP 0303944 A1 19890222 - SATRONIC AG [CH]

Cited by  
NL1036416C2; CN108787299A; CN112641131A; CN114468394A; CN112714677A

Designated contracting state (EPC)  
DE FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0421439 A2 19910410**; **EP 0421439 A3 19920318**; **EP 0421439 B1 19950201**; DE 3933300 A1 19910418; DE 59008408 D1 19950316

DOCDB simple family (application)  
**EP 90119084 A 19901004**; DE 3933300 A 19891005; DE 59008408 T 19901004