

Title (en)  
Pulse tube cold head

Title (de)  
Pulse-Tube-Kaltkopf

Title (fr)  
Tête froide de tube à pulsion

Publication  
**EP 2256437 A3 20150107 (DE)**

Application  
**EP 10005476 A 20100527**

Priority  
DE 102009022933 A 20090527

Abstract (en)  
[origin: EP2256437A2] The head has a hot heat exchanger (2) in the form of a tube whose cross-section is larger than cross-section of a pulse-tube (1). A two-stage inertance tube is connected between the heat exchanger and a reservoir. The inertance tube comprises an inertance tube part (3) causing reduced friction loss. A friction tube part (4) of the inertance tube exhibits cross-section that is lesser than that of the inertance tube part. The inertance tube part is connected with the heat exchanger, and the friction tube part is connected with the reservoir.

IPC 8 full level  
**F25B 9/14** (2006.01)

CPC (source: EP)  
**F25B 9/145** (2013.01); **F25B 2309/1423** (2013.01); **F25B 2309/1424** (2013.01)

Citation (search report)

- [A] KR 20020066232 A 20020814 - LG ELECTRONICS INC [KR]
- [AD] JP 2002106992 A 20020410 - CRYODEVICE INC
- [AD] US 2009107150 A1 20090430 - YUAN SIDNEY W [US], et al
- [AD] US 6442947 B1 20020903 - MITCHELL MATTHEW P [US]

Cited by  
CN106996655A; CN109442798A

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 SE SI SK SM TR

Designated extension state (EPC)  
BA ME RS

DOCDB simple family (publication)  
**EP 2256437 A2 20101201; EP 2256437 A3 20150107**; DE 102009022933 A1 20101202; DE 102009022933 B4 20110901

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**EP 10005476 A 20100527**; DE 102009022933 A 20090527