

Title (en)

Fluid feed pump, fluid circulation device, medical device and electronic device

Title (de)

Flüssigkeitszufuhrpumpe, Flüssigkeitszirkulationsvorrichtung, medizinische Vorrichtung und elektronische Vorrichtung

Title (fr)

Pompe d'alimentation de fluide, dispositif de circulation de fluide, dispositif médical et dispositif électronique

Publication

EP 2570671 B1 20150805 (EN)

Application

EP 12183683 A 20120910

Priority

- JP 2011199122 A 20110913
- JP 2011199127 A 20110913
- JP 2011252355 A 20111118
- JP 2012055330 A 20120313

Abstract (en)

[origin: EP2570671A1] A fluid feed pump is configured, such that a fluid is fed from an outlet channel of the fluid feed pump through an outlet buffer chamber to a fluid channel. The outlet buffer chamber is designed to have a higher compliance than a compliance of a pump chamber. The driving period of the fluid feed pump is set to a shorter period than a time constant defined by the compliance of the pump chamber and a flow resistance between an inlet of the outlet channel and an outlet of the fluid channel. This enables the fluid to be fed with high efficiency by taking advantage of the pressure oscillation occurring between the pump chamber and the outlet buffer chamber.

IPC 8 full level

F04B 43/04 (2006.01); **F04B 49/06** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP US)

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Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 2570671 A1 20130320; **EP 2570671 B1 20150805**; CN 102996395 A 20130327; CN 102996395 B 20161221; US 2013064698 A1 20130314

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EP 12183683 A 20120910; CN 201210333368 A 20120910; US 201213610419 A 20120911