

Title (en)
PUMP DEVICE

Title (de)
PUMPVORRICHTUNG

Title (fr)
DISPOSITIF DE POMPE

Publication
EP 2832998 A4 20160120 (EN)

Application
EP 13768264 A 20130307

Priority
• JP 2012082015 A 20120330
• JP 2013001436 W 20130307

Abstract (en)
[origin: EP2832998A1] [Object] To provide a pump device capable of achieving a further reduction in power consumption. [Solving Means] A pump device (1) according to an embodiment of the present invention includes a drive motor (M), a first pump unit for evacuation (11) including a first pump chamber and a first piston (21v), and a second pump unit for pressurization (12) including a second pump chamber and a second piston (21c). The second piston (21c) has a phase advanced with a rotational phase difference (ϕ) of more than 0° and less than 80° with respect to the first piston (21v).

IPC 8 full level
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F04B 41/06 (2013.01 - EP US); **F04B 2201/02011** (2013.01 - EP US); **F04B 2201/0802** (2013.01 - EP US); **F04B 2203/0201** (2013.01 - EP US)

Citation (search report)
• No further relevant documents disclosed
• See references of WO 2013145576A1

Cited by
KR20210069726A; EP3872345A4; US11905942B2

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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 RS SE SI SK SM TR

DOCDB simple family (publication)
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JP 5878625 B2 20160308; JP WO2013145576 A1 20151210; KR 101602089 B1 20160309; KR 20140126757 A 20141031;
TW 201400702 A 20140101; TW I619883 B 20180401; US 2015086402 A1 20150326; WO 2013145576 A1 20131003

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