

Title (en)
Reciprocating pump, particularly for vacuum insulated domestic refrigerators

Title (de)
Kolbenpumpe, insbesondere für einen Kühlschrank mit Vakuumisolation

Title (fr)
Pompe à piston pour réfrigérateur avec des panneaux isolants sous vide

Publication
EP 1338794 A1 20030827 (EN)

Application
EP 02004225 A 20020226

Priority
EP 02004225 A 20020226

Abstract (en)
A reciprocating-motion type vacuum pump for use in domestic refrigerators or freezers having vacuum insulated walls comprises valves which are electrically or electronically driven and are controlled by an electronic control unit in order to optimise the pump performances. <IMAGE>

IPC 1-7
F04B 7/00; **F04B 19/00**; **F04B 39/08**; **F04B 49/24**

IPC 8 full level
F04B 7/00 (2006.01); **F04B 19/00** (2006.01); **F04B 39/08** (2006.01); **F04B 49/24** (2006.01)

CPC (source: EP)
F04B 7/0076 (2013.01); **F04B 19/006** (2013.01); **F04B 39/08** (2013.01); **F04B 49/24** (2013.01)

Citation (search report)

- [XY] US 5630709 A 19970520 - BAR-COHEN YOSEPH [US]
- [Y] US 5765379 A 19980616 - JENSEN TORBEN HOVE [DK]
- [X] US 4815946 A 19890328 - CUSACK ROBERT F [US]
- [X] WO 0135484 A1 20010517 - UNIV PENNSYLVANIA [US], et al
- [X] US 5988985 A 19991123 - STEINRUECK PETER [AT]
- [X] DE 19532037 C1 19961219 - MAYER EBERHARD [DE]
- [A] US 5277032 A 19940111 - SEE HAROLD J [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 006, no. 236 (M - 173) 25 November 1982 (1982-11-25)
- [X] PATENT ABSTRACTS OF JAPAN vol. 009, no. 215 (M - 409) 3 September 1985 (1985-09-03)

Cited by
US2014377082A1; DE102016109318A1; EP2738498A3; CN110332087A; RU2656202C2; RU2677410C1; CN104081050A; JP2015507120A; US10174747B2; GB2490180A; GB2490180B; EP2699800A4; DE202010002145U1; CN105051365A; US2016003233A1; US2018274530A1; US10731642B2; US10774827B2; WO2014124507A1; WO2005093349A1; WO2008000698A3; WO2013097006A1; WO2008000698A2; US9611845B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1338794 A1 20030827

DOCDB simple family (application)
EP 02004225 A 20020226