Title (en)

Vacuum pump

Title (de)

Vakuumpumpe

Title (fr)

Pompe à vide

Publication

EP 2772650 A3 20151216 (DE)

Application

EP 14153982 A 20140205

Priority

DE 102013203421 A 20130228

Abstract (en)

[origin: EP2772650A2] The vacuum pump has a pump inlet (10), a pump outlet (14) and a pump chamber (18) for a gas to be pumped, where the pump housing is arranged between the pump inlet and the pump outlet. A cooling gas inlet (48) is provided for a cooling gas for cooling the vacuum pump. One or more hollow portions are provided for the cooling gas and are arranged outside the pump chamber. Each hollow portion is limited by a component of the vacuum pump. One of the hollow portions is connected with the pump outlet in a conductive manner. An independent claim is included for a method for operating a vacuum pump.

IPC 8 full level

F04D 19/04 (2006.01); **F04D 29/58** (2006.01)

CPC (source: EP US)

F04D 19/042 (2013.01 - EP US); **F04D 29/584** (2013.01 - EP US)

Citation (search report)

- [X] JP 2002039092 A 20020206 - SHIMADZU CORP
- [X] DE 8608801 U1 19860515
- [X] US 6019581 A 20000201 - VON SCHULZ-HAUSMANN FRIEDRICH [DE], et al
- [X] WO 8906319 A1 19890713 - SHOLOKHOV VALERY B [SU], et al & DE 3791053 T1 19891221 - SOLOCHOV VALERIJ BORISOVIC [SU], et al
- [X] DE 10393602 T5 20050929 - TAIKO KIKAI IND CO [JP]

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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2772650 A2 20140903; **EP 2772650 A3 20151216**; **EP 2772650 B1 20170405**; CN 104019041 A 20140903; CN 104019041 B 20170912; DE 102013203421 A1 20140828; JP 2014169697 A 20140918; JP 5859041 B2 20160210; US 2014241853 A1 20140828; US 9964121 B2 20180508

DOCDB simple family (application)

EP 14153982 A 20140205; CN 201410056755 A 20140219; DE 102013203421 A 20130228; JP 2014033888 A 20140225; US 201414191658 A 20140227