

Title (en)

POSITIVE DISPLACEMENT MACHINE, METHOD, VEHICLE AIR CONDITIONING SYSTEM, AND VEHICLE

Title (de)

VERDRÄNGERMASCHINE, VERFAHREN, FAHRZEUGKLIMAANLAGE UND FAHRZEUG

Title (fr)

MACHINE À DÉPLACEMENT POSITIF, PROCÉDÉ, SYSTÈME DE CLIMATISATION DE VÉHICULE, ET VÉHICULE ASSOCIÉ

Publication

EP 4146940 A1 20230315 (DE)

Application

EP 21716984 A 20210330

Priority

- DE 102020110096 A 20200409
- EP 2021058247 W 20210330

Abstract (en)

[origin: WO2021204591A1] The invention relates to a scroll-type positive displacement machine, in particular a scroll compressor, comprising a high-pressure chamber (11), a low-pressure chamber (12), an orbiting displacement spiral (13), a counter spiral (14), and a counter-pressure chamber (15) which is located between the low-pressure chamber (12) and the displacement spiral (13), the displacement spiral (13) engaging in the counter spiral (14) in such a way that, during operation, at least a first and a second compression chamber (16a, 16b) for receiving a working medium are temporarily formed, and the displacement spiral (13) having at least one passage opening (17) for fluidic connection to the counter-pressure chamber (15), wherein the passage opening (17) is located in the displacement spiral (13) in such a manner that, during operation, due to the orbiting movement of the displacement spiral (13), at least sections of the passage opening (17) are temporarily arranged in the first compression chamber (16a) and subsequently at least sections of the passage opening are temporarily arranged in the second compression chamber (16b).

IPC 8 full level

F04C 18/02 (2006.01)

CPC (source: EP KR US)

F04C 18/0215 (2013.01 - KR US); **F04C 18/0253** (2013.01 - US); **F04C 18/0261** (2013.01 - EP KR US); **F05B 2210/14** (2013.01 - KR)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102020110096 A1 20211014; CN 115380163 A 20221122; EP 4146940 A1 20230315; JP 2023520350 A 20230517; KR 20220161482 A 20221206; US 11905952 B2 20240220; US 2023175506 A1 20230608; WO 2021204591 A1 20211014

DOCDB simple family (application)

DE 102020110096 A 20200409; CN 202180027322 A 20210330; EP 2021058247 W 20210330; EP 21716984 A 20210330; JP 2022558135 A 20210330; KR 20227038774 A 20210330; US 202117995462 A 20210330