

Title (en)  
SCREW COMPRESSOR, AND REFRIGERATION CYCLE DEVICE

Title (de)  
SCHRAUBENVERDICHTER UND KÜHLZYKLUSVORRICHTUNG

Title (fr)  
COMPRESSEUR À VIS ET DISPOSITIF À CYCLE FRIGORIFIQUE

Publication  
**EP 3981987 A4 20220629 (EN)**

Application  
**EP 19931683 A 20190605**

Priority  
JP 2019022282 W 20190605

Abstract (en)  
[origin: EP3981987A1] A screw compressor includes a casing, a screw rotor, a gate rotor, and a slide valve. A low-pressure flow path allowing low-pressure refrigerant before being suctioned into the screw rotor to flow therethrough, a high-pressure flow path allowing high-pressure refrigerant discharged from a discharge port to flow therethrough, and a merge flow path merging the low-pressure flow path and the high-pressure flow path are provided. A pressure switching mechanism switching pressure of the refrigerant is disposed in at least one of the low-pressure flow path, the high-pressure flow path, and the merge flow path. The merge flow path applies pressure applying refrigerant, pressure of which is switched by the pressure switching mechanism, from a downstream-side end part to one of end parts of the slide valve.

IPC 8 full level  
**F04C 18/52** (2006.01); **F04C 28/18** (2006.01)

CPC (source: EP)  
**F04C 18/52** (2013.01); **F04C 28/18** (2013.01); **F04C 2210/26** (2013.01)

Citation (search report)

- [AD] JP 2013036403 A 20130221 - DAIKIN IND LTD
- [A] US 5509273 A 19960423 - LAKOWSKE RODNEY L [US], et al
- [A] JP H0552194 A 19930302 - DAIKIN IND LTD
- [A] US 4610613 A 19860909 - SZYMASZEK PAUL G [US]
- See also references of WO 2020245932A1

Cited by  
US2022349404A1; US11802563B2

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 3981987 A1 20220413**; **EP 3981987 A4 20220629**; WO 2020245932 A1 20201210

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