

Title (en)
SCREW COMPRESSOR AND REFRIGERATION CYCLE DEVICE

Title (de)
SCHRAUBENVERDICHTER UND KÜHLZYKLUSVORRICHTUNG

Title (fr)
COMPRESSEUR À VIS ET DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 3225848 A4 20181017 (EN)

Application
EP 14906847 A 20141126

Priority
JP 2014081284 W 20141126

Abstract (en)
[origin: EP3225848A1] A screw compressor includes a casing (1), a screw rotor (3) disposed in the casing (1), a compression chamber (5) defined between the casing (1) and the screw rotor (3) to compress refrigerant gas, a slide groove (1 a) extending on the inner peripheral surface of the casing (1) along the rotational axis of the screw rotor (3), a refrigerant liquid passage (1b) extending through the casing (1) to bring the outside of the casing (1) into communication with the slide groove (1 a), and a slidable valve (8) for varying the internal volume ratio slidable on the slide groove (1 a) along the rotational axis of the screw rotor (3). The slidable valve (8) includes an injection port (8a) to bring the refrigerant liquid passage (1 b) into communication with the compression chamber (5) depending on the position of the slidable valve (8). The injection port (8a) is configured to shift between a first position and a second position. The injection port (8a) communicates with the refrigerant liquid passage (1 b) at the first position, and does not communicate with the refrigerant liquid passage (1 b) at the second position. The second position is closer to the suction end of the screw compressor than the first position.

IPC 8 full level
F04C 18/52 (2006.01); **F04C 18/16** (2006.01); **F04C 28/12** (2006.01); **F04C 28/26** (2006.01); **F04C 29/00** (2006.01); **F04C 29/04** (2006.01)

CPC (source: EP)
F04C 18/16 (2013.01); **F04C 18/52** (2013.01); **F04C 28/12** (2013.01); **F04C 29/0007** (2013.01); **F04C 29/042** (2013.01)

Citation (search report)

- [XII] US 3859814 A 19750114 - GRANT WHITNEY I
- [XII] JP S55156291 A 19801205 - HITACHI LTD
- [E] EP 3006740 A1 20160413 - MITSUBISHI ELECTRIC CORP [JP]
- [E] EP 3199814 A1 20170802 - MITSUBISHI ELECTRIC CORP [JP]
- See references of WO 2016084176A1

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

DOCDB simple family (publication)
EP 3225848 A1 20171004; **EP 3225848 A4 20181017**; JP 6234611 B2 20171122; JP WO2016084176 A1 20170427;
WO 2016084176 A1 20160602

DOCDB simple family (application)
EP 14906847 A 20141126; JP 2014081284 W 20141126; JP 2016561149 A 20141126