

Title (en)
INTERNAL MEDIUM PRESSURE TWO-STAGE COMPRESSION COMPRESSOR

Title (de)
MEDIENINNENDRUCKVERDICHTER MIT ZWEISTUFIGER KOMPRESSION

Title (fr)
COMPRESSEUR À COMPRESSION À DEUX ÉTAGES, À PRESSION INTERNE MOYENNE

Publication
EP 3617514 A4 20200304 (EN)

Application
EP 18790603 A 20180424

Priority
• JP 2017089843 A 20170428
• JP 2018016541 W 20180424

Abstract (en)
[origin: EP3617514A1] The present invention provides an internal medium pressure type two-stage compression compressor wherein a compression mechanism 30 includes a first compression mechanism 30A which carries out first stage low stage compression, and a second compression mechanism 30B which carries out second stage high pressure compression, an oil supply passage 36 is formed in a suction passage 35B of the second compression mechanism 30B, refrigerant gas which is compressed by the first compression mechanism 30A is discharged into an airtight container 10, the refrigerant gas is compressed by the second compression mechanism 30B and discharged outside the airtight container 10, and oil is supplied to a second compression chamber 34B of the second compression mechanism 30B from the oil supply passage 36 by a pressure difference between case internal pressure in the airtight container 10 and suction pressure in the suction passage 35B of the second compression mechanism 30B, and when the piston 32B turns from a top dead center to a position of the suction passage 35B, a closed space 106 is not formed between the vane 33, the cylinder 31B and the piston 32B. According to this, it is possible to prevent lubricant oil from flowing into a high stage compression chamber (second compression chamber 34B) more than a set value.

IPC 8 full level
F04C 29/02 (2006.01); **F04B 37/12** (2006.01); **F04B 39/02** (2006.01); **F04C 18/356** (2006.01); **F04C 23/00** (2006.01)

CPC (source: EP)
F04B 37/12 (2013.01); **F04B 39/02** (2013.01); **F04B 39/0246** (2013.01); **F04C 18/356** (2013.01); **F04C 23/00** (2013.01); **F04C 29/02** (2013.01)

Citation (search report)
• [Y] US 2004208769 A1 20041021 - SATO KAZUYA [JP], et al
• [Y] JP 2003254276 A 20030910 - SANYO ELECTRIC CO
• [Y] JP S57206790 A 19821218 - MITSUBISHI HEAVY IND LTD
• [Y] JP 2013185496 A 20130919 - PANASONIC CORP
• See references of WO 2018199061A1

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 3617514 A1 20200304; **EP 3617514 A4 20200304**; **EP 3617514 B1 20230222**; CN 110573741 A 20191213; JP 2018188986 A 20181129; WO 2018199061 A1 20181101

DOCDB simple family (application)
EP 18790603 A 20180424; CN 201880027972 A 20180424; JP 2017089843 A 20170428; JP 2018016541 W 20180424