

Title (en)
EXPANDER-INTEGRATED COMPRESSOR AND REFRIGERATION CYCLE DEVICE USING THE SAME

Title (de)
ENTSPANNERINTEGRIERTER VERDICHTER UND DIESEN VERWENDENDER KÄLTEKREISLAUF

Title (fr)
COMPRESSEUR À MÉCANISME D'EXPANSION INTÉGRÉ ET DISPOSITIF À CYCLE DE REFROIDISSEMENT UTILISANT CE COMPRESSEUR

Publication
EP 2241719 A1 20101020 (EN)

Application
EP 09705176 A 20090127

Priority
• JP 2009000295 W 20090127
• JP 2008018354 A 20080129

Abstract (en)
An expander-integrated compressor (100A) has a compression mechanism (2), an expansion mechanism (3), a shaft (5), an oil pump (6), and an oil supply amount regulating mechanism (30). The compression mechanism (2) and the expansion mechanism (3) are coupled to each other by the shaft (5) so that mechanical power can be transmitted. The compression mechanism (2) and the expansion mechanism (3) are arrayed vertically in the closed casing (1). The oil pump (6) is provided at a lower portion of the shaft (5). An oil supply passage (29) is formed in the shaft (5) so as to extend in the axis direction. The oil supply amount regulating mechanism 30 controls the amount of the oil to be supplied by the oil pump (6) to the expansion mechanism (3).

IPC 8 full level
F01C 21/04 (2006.01); **F01C 13/04** (2006.01); **F04B 39/02** (2006.01); **F04C 23/02** (2006.01); **F04C 29/02** (2006.01)

CPC (source: EP US)
F04C 18/356 (2013.01 - EP US); **F04C 23/003** (2013.01 - EP US); **F04C 23/008** (2013.01 - EP US); **F04C 29/025** (2013.01 - EP US); **F04C 29/028** (2013.01 - EP US)

Citation (search report)
See references of WO 2009096167A1

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2241719 A1 20101020; CN 101910563 A 20101208; JP WO2009096167 A1 20110526; US 2010326124 A1 20101230; WO 2009096167 A1 20090806

DOCDB simple family (application)
EP 09705176 A 20090127; CN 20098010209 A 20090127; JP 2009000295 W 20090127; JP 2009551430 A 20090127; US 86508509 A 20090127