

Title (en)

Two-stage compressor and two-stage compression system

Title (de)

Zweistufiger Kompressor und zweistufiges Kompressionssystem

Title (fr)

Compresseur à deux étages et système de compression à deux étages

Publication

EP 2685106 A3 20140402 (EN)

Application

EP 13176012 A 20130711

Priority

JP 2012156430 A 20120712

Abstract (en)

[origin: EP2685106A2] A two-stage compressor (1) is an intermediate-pressure-housing type two-stage compressor which includes a low-stage-side compressor (2) and a high-stage-side compressor (3) both provided inside a housing (10), and in which a refrigerant compressed to an intermediate pressure in the low-stage-side compressor (2) is discharged inside the housing (10) and the intermediate-pressure refrigerant is sucked into the high-stage-side compressor (3) and compressed to a high pressure. The low-stage-side compressor (2) is a rotary compressor equipped with a blade (26) partitioning an inside of a cylinder chamber into a suction side and a compression side and the blade reciprocates in response to rotation of a rotor (24). The blade (26) is formed of a material having a density of 3 g/cm³ or less so as to reduce the blade's inertial force in response to a lower back pressure acting on a back surface of the blade.

IPC 8 full level

F04C 18/02 (2006.01); **F04C 18/356** (2006.01); **F01C 21/08** (2006.01); **F04C 23/00** (2006.01)

CPC (source: EP)

F01C 21/0809 (2013.01); **F04C 18/3564** (2013.01); **F04C 23/005** (2013.01); **F04C 18/0215** (2013.01); **F04C 23/008** (2013.01); **F04C 2210/26** (2013.01)

Citation (search report)

- [Y] EP 1953388 A1 20080806 - MITSUBISHI HEAVY IND LTD [JP]
- [Y] US 6032720 A 20000307 - RIEGGER OTTO K [US], et al
- [YA] EP 0533957 A1 19930331 - SANYO ELECTRIC CO [JP]
- [A] FR 2890418 A1 20070309 - ATLAS COPCO CREPELLE S A S [FR]

Cited by

CN112032048A

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 2685106 A2 20140115; **EP 2685106 A3 20140402**; **EP 2685106 B1 20170531**; JP 2014020209 A 20140203

DOCDB simple family (application)

EP 13176012 A 20130711; JP 2012156430 A 20120712