

Title (en)

Two-stage compression device and chilling/air-conditioning device using the same

Title (de)

Zweischrittkompressionsvorrichtung und Kühl-/Klimaanlage damit

Title (fr)

Dispositif de compression à deux étapes et dispositif de refroidissement/climatisation d'air l'utilisant

Publication

EP 2762803 A3 20151118 (EN)

Application

EP 14152364 A 20140124

Priority

JP 2013015324 A 20130130

Abstract (en)

[origin: EP2762803A2] There are provided a two-stage compression device having two serially connected compressors, of which the number of components is reduced through omission of an oil separator, and thereby the configuration is made simpler, lower in cost, and more compact, and a chilling/air-conditioning device using the two-stage compression device. The two-stage compression device 2 which compresses a refrigerant in two stages includes two serially connected compressors of which a low stage-side compressor 10 and a high stage-side compressor 20 in which, of the two compressors 2, the low stage-side compressor 10 is a low pressure housing-type compressor 10, while the high stage-side compressor 20 is a high pressure housing-type compressor 20, and an oil sump 25 of the high pressure housing-type compressor 20 and an oil sump 15 of the low pressure housing-type compressor 10 are connected through an oil return pipe 27.

IPC 8 full level

F25B 31/00 (2006.01); **F25B 1/10** (2006.01)

CPC (source: EP)

F25B 31/004 (2013.01); **F25B 1/10** (2013.01)

Citation (search report)

- [XI] EP 2034258 A1 20090311 - ELECTRICITE DE FRANCE [FR]
- [X] US 2009064709 A1 20090312 - SEKIYA SHIN [JP], et al
- [X] EP 2182305 A1 20100505 - ZANOTTI S P A [IT]
- [X] US 5236311 A 19930817 - LINDSTROM ROBERT A [US]

Cited by

CN104930738A; CN112344574A; EP3392577A4; CN109441808A

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)

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