

Title (en)

Method and device for low-temperature cooling/liquefaction

Title (de)

Verfahren und Vorrichtung zur Niedrigtemperaturkühlung/-verflüssigung

Title (fr)

Procédé et dispositif de refroidissement/liquéfaction à basse température

Publication

EP 2444759 A3 20141231 (FR)

Application

EP 11184054 A 20111006

Priority

FR 1058632 A 20101022

Abstract (en)

[origin: EP2444759A2] The method involves compressing working gas in a compression station (2) according to compression stages that utilize lubricated screw compressors (EC1, EC2) and centrifugal compressor (EC3). The compressed gas is cooled in a cold box (3) until a determined cold temperature. The centrifugal compressor belonging to another compression station (12) of refrigerator or liquefier (11) distinct from another refrigerator or liquefier (1) is selectively used, where the former refrigerator or liquefier utilizes working fluid having same nature as that of the latter refrigerator or liquefier. An independent claim is also included for an installation comprising distinct refrigerators or liquefiers to provide frigories to distinct consumer applications.

IPC 8 full level

F25B 1/10 (2006.01); **F25B 9/00** (2006.01); **F25J 1/00** (2006.01); **F25J 1/02** (2006.01)

CPC (source: EP)

F25B 1/10 (2013.01); **F25B 9/002** (2013.01); **F25J 1/0065** (2013.01); **F25J 1/0067** (2013.01); **F25J 1/0271** (2013.01); **F25J 1/0276** (2013.01); **F25J 1/0279** (2013.01); **F25J 1/0294** (2013.01); **F25B 2400/06** (2013.01); **F25J 2270/912** (2013.01)

Citation (search report)

- [A] FR 2919716 A1 20090206 - AIR LIQUIDE [FR]
- [A] US 2004050093 A1 20040318 - LIFSON ALEXANDER [US], et al
- [A] US 2003042463 A1 20030306 - ARMAN BAYRAM [US], et al
- [A] US 6065305 A 20000523 - ARMAN BAYRAM [US], et al
- [A] CN 1430029 A 20030716 - CHENGDU XIWANG ELECTRONIC INST [CN]
- [A] EP 1059494 A1 20001213 - DAIKIN IND LTD [JP]

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JP2017067432A; US10180282B2; KR20170038703A; EP3159637A3; AU2016231640B2

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 2444759 A2 20120425; **EP 2444759 A3 20141231**; **EP 2444759 B1 20170419**; FR 2966577 A1 20120427; FR 2966577 B1 20121026

DOCDB simple family (application)

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