

Title (en)

CARBON DIOXIDE COMPRESSION REFRIGERATION SYSTEM

Title (de)

KOHLENDIOXIDKOMPRESSIONSKÄLTEANLAGE

Title (fr)

SYSTÈME DE RÉFRIGÉRATION PAR COMPRESSION DE DIOXYDE DE CARBONE

Publication

EP 3112776 A1 20170104 (EN)

Application

EP 16177348 A 20160630

Priority

IT UB20151873 A 20150630

Abstract (en)

A refrigeration system (1) comprising a primary refrigeration circuit (2) that contains carbon dioxide and is provided with a compressor device (3), a primary cooling device (4), which is designed to perform a first cooling of the carbon dioxide leaving said compressor device (3), an expansion device (5) to expand the carbon dioxide and a heat-exchanger device (6) which accumulates heat in the expanded carbon dioxide supplied by the expansion device (5), and a secondary cooling device (10) which performs a second cooling of the carbon dioxide leaving the primary cooling device (4) to cause a further drop in the temperature of the carbon dioxide from said second temperature (t2) to a third temperature (t3), lower than said second temperature (t2), before the carbon dioxide is supplied to the expansion device (5).

IPC 8 full level

F25B 7/00 (2006.01); **F25B 9/00** (2006.01); **F25B 27/00** (2006.01); **F25B 40/02** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)

F25B 7/00 (2013.01); **F25B 9/008** (2013.01); **F25B 27/00** (2013.01); **F25B 40/02** (2013.01); **F25B 49/02** (2013.01); **F25B 2700/21163** (2013.01)

Citation (search report)

- [X] GB 2521369 A 20150624 - GREENFIELD MASTER IPCO LTD [GB]
- [X] WO 2006027330 A1 20060316 - IARP S R L [IT], et al
- [X] WO 2007022778 A1 20070301 - KNUDSEN KOELING AS [DK], et al

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IT202100028400A1; IT201900010572A1; US2022282893A1; US11739992B2; US2023272927A1

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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