

Title (en)
ENERGY CONVERSION REFRIGERATION APPARATUS AND METHOD

Title (de)
ENERGIEWANDLERKÜHLSYSTEM UND VERFAHREN DAFÜR

Title (fr)
CONVERSION D'ÉNERGIE POUR APPAREIL ET MÉTHODE DE RÉFRIGÉRATION

Publication
EP 2884206 B1 20190522 (EN)

Application
EP 14181101 A 20140814

Priority
US 201314107263 A 20131216

Abstract (en)
[origin: EP2884206A1] In order to overcome the problems that earlier apparatus and earlier methods have experienced, an apparatus (100) and a method of energy conversion for a freezer are proposed, comprising: - providing liquid carbon dioxide (CO₂) at a first pressure and at a first energy state to a first region (A) for providing potential energy; - expanding the liquid carbon dioxide (CO₂) to a second pressure less than the first pressure, and to a second energy state less than the first energy state in a second region (B) in fluid communication with the first region (A) for providing kinetic energy for performing mechanical work in the second region (B); and - exhausting the liquid carbon dioxide (CO₂) as a carbon dioxide (CO₂) snow at a third pressure less than the second pressure, and at a third energy state less than the second energy state from a third region (C) in fluid communication with the second region (B).

IPC 8 full level
F25D 3/12 (2006.01)

CPC (source: EP)
F25D 3/12 (2013.01); **F25B 2400/141** (2013.01)

Cited by
EP3364041A1; EP3318825A1

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

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