

Title (en)  
REFRIGERATION APPARATUS

Title (de)  
KÜHLVORRICHTUNG

Title (fr)  
APPAREIL DE RÉFRIGÉRATION

Publication  
**EP 4006443 A1 20220601 (EN)**

Application  
**EP 21209825 A 20211123**

Priority  
JP 2020195261 A 20201125

Abstract (en)  
A refrigeration apparatus includes a main compression mechanism, a gas cooler, a main throttle mechanism, and an evaporator, and allows circulation of a refrigerant containing carbon dioxide. The refrigeration apparatus includes a split heat exchanger including a first flow channel and a second flow channel, in which the first flow channel is disposed at a site downstream of the gas cooler and upstream of the main throttle mechanism, and part of a refrigerant flowing out of the first flow channel flows into the second flow channel; an auxiliary throttle mechanism that throttles a refrigerant that is to flow into the second flow channel; and an ejector including a nozzle and a suction part, in which the nozzle is disposed at a site downstream of the main compression mechanism and upstream of the first flow channel, and the suction part sucks in a refrigerant flowing out of the second flow channel.

IPC 8 full level  
**F25B 1/10** (2006.01); **F25B 9/00** (2006.01); **F25B 41/00** (2021.01); **F25B 49/02** (2006.01)

CPC (source: CN EP)  
**F25B 1/10** (2013.01 - EP); **F25B 9/008** (2013.01 - CN EP); **F25B 9/08** (2013.01 - CN); **F25B 41/00** (2013.01 - EP); **F25B 49/02** (2013.01 - CN EP); **F25B 2309/061** (2013.01 - EP); **F25B 2341/0012** (2013.01 - EP); **F25B 2400/05** (2013.01 - EP); **F25B 2400/072** (2013.01 - EP); **F25B 2400/075** (2013.01 - EP); **F25B 2400/13** (2013.01 - EP); **F25B 2400/23** (2013.01 - EP); **F25B 2700/1933** (2013.01 - EP); **F25B 2700/195** (2013.01 - EP); **F25B 2700/2106** (2013.01 - EP)

Citation (applicant)  
• JP H0718602 B2 19950306  
• JP 3322263 B1 20020909

Citation (search report)  
• [X1] DE 102019111309 A1 20201105 - UNIV DRESDEN TECH [DE]  
• [X1] WO 2017081157 A1 20170518 - DANFOSS AS [DK]

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 4006443 A1 20220601**; CN 114543382 A 20220527; JP 2022083749 A 20220606

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