

Title (en)

Refrigerator for cryogenic gas separation system

Title (de)

Kühlgerät für Tieftemperaturgastrennunganlage

Title (fr)

Réfrigérateur pour installation de séparation des gaz de l'air

Publication

EP 1087195 B1 20061122 (EN)

Application

EP 00120673 A 20000921

Priority

JP 27024599 A 19990924

Abstract (en)

[origin: EP1087195A2] A cryogenic gas separation system which comprises a refrigerator and utilizes cold produced by the refrigerator as a cold source for separation of a gas. The refrigerator incorporates a rotary valve which comprises a rotary element rotatable about an axis thereof and having a circular cross section perpendicular to the axis, and a housing accommodating the rotary element in a rotatable manner. The rotary element has a plurality of ports provided in an outer peripheral portion thereof, the housing having a plurality of ports provided in a peripheral wall thereof in association with the ports of the rotary element, the rotary valve being operative to be switched between a position where predetermined ones of the ports of the rotary element are aligned with corresponding ones of the ports of the housing for communication therebetween and a position where the predetermined ones of the ports of the rotary element are displaced in non-alignment with the corresponding ones of the ports of the housing for non-communication therebetween by rotation of the rotary element. The valve incorporated in the refrigerator has a smaller size and an extended service, and the cryogenic gas separation system can obtain a sufficient amount of cold with the use of the refrigerator. <IMAGE>

IPC 8 full level

F25B 9/00 (2006.01); **F25J 3/04** (2006.01); **F25B 9/14** (2006.01)

CPC (source: EP KR)

F25B 9/00 (2013.01 - KR); **F25B 9/145** (2013.01 - EP); **F25J 3/04278** (2013.01 - EP); **F25J 3/044** (2013.01 - EP); **F25J 3/04866** (2013.01 - EP); **F25B 2309/1408** (2013.01 - EP); **F25B 2309/14181** (2013.01 - EP); **F25B 2309/1424** (2013.01 - EP); **F25J 2240/40** (2013.01 - EP); **F25J 2270/91** (2013.01 - EP)

Cited by

EP1167904A1; EP1319906A3; US6813891B2

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