

Title (en)

TWO STAGED REFRIGERATION CYCLE USING A MULTICONSTITUANT REFRIGERANT

Title (de)

ZWEISTUFIGES KALTEKREISLAUF MIT MULTIKOMPONENT KALTEMITTEL

Title (fr)

CYCLE DE REFRIGERATION EN DEUX ETAPES UTILISANT UN FRIGORIGENE A PLUSIEURS CONSTITUANTS

Publication

EP 0990108 A1 20000405 (EN)

Application

EP 98928467 A 19980612

Priority

- GB 9801720 W 19980612
- GB 9712304 A 19970612

Abstract (en)

[origin: WO9857108A1] A refrigeration cycle utilizing a multi-component refrigerant wherein the compression of low pressure refrigerant vapour is effected in at least two stages of compression (42, 44) with cooling (48, 58), partial condensation and separation (52, 62) from the uncondensed vapour of the condensate formed after each of at least two of the said stages thereby providing two or more condensate streams (64, 70) of different compositions and at different pressures and wherein at least two of said condensate streams are expanded and injected into the returning low pressure refrigerant (40) at different temperatures of said low pressure refrigerant (40).

IPC 1-7

F25J 3/06; **F25J 1/02**

IPC 8 full level

F25J 1/02 (2006.01)

CPC (source: EP)

F25J 1/0022 (2013.01); **F25J 1/004** (2013.01); **F25J 1/0045** (2013.01); **F25J 1/0052** (2013.01); **F25J 1/0055** (2013.01); **F25J 1/0212** (2013.01); **F25J 1/0262** (2013.01); **F25J 1/0279** (2013.01); **F25J 1/0291** (2013.01); **F25J 1/0296** (2013.01); **F25J 2200/80** (2013.01); **F25J 2205/02** (2013.01); **F25J 2215/62** (2013.01); **F25J 2220/62** (2013.01); **F25J 2220/64** (2013.01); **F25J 2290/32** (2013.01)

Citation (search report)

See references of WO 9857108A1

Cited by

FR3043451A1; FR3043452A1; RU2684060C2; US10480851B2; US11408673B2; US11428463B2; WO2017081374A1; WO2017081375A1; US10663221B2; US11408676B2; US9441877B2; US10502483B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 9857108 A1 19981217; AU 8029698 A 19981230; DE 69808087 D1 20021024; DE 69808087 T2 20030528; EP 0990108 A1 20000405; EP 0990108 B1 20020918; GB 9712304 D0 19970813

DOCDB simple family (application)

GB 9801720 W 19980612; AU 8029698 A 19980612; DE 69808087 T 19980612; EP 98928467 A 19980612; GB 9712304 A 19970612