

Title (en)
TRANSCRITICAL REFRIGERANT VAPOR COMPRESSION SYSTEM WITH CHARGE MANAGEMENT

Title (de)
TRANSKRITISCHES KÄLTEMITTELDAMPFKOMPRESSIONSSYSTEM MIT LADUNGSVERWALTUNG

Title (fr)
SYSTÈME DE COMPRESSION DE VAPEUR DE RÉFRIGÉRANT TRANSCRITIQUE À GESTION DE CHARGE

Publication
EP 2147269 A4 20140528 (EN)

Application
EP 07756034 A 20070424

Priority
US 2007010066 W 20070424

Abstract (en)
[origin: WO2008130358A1] A refrigerant vapor compression system includes a refrigerant-to-refrigerant heat exchanger economizer and a flash tank disposed in series refrigerant flow relationship in the refrigerant circuit intermediate a refrigerant heat rejection heat exchanger and a refrigerant heat absorption heat exchanger. A primary expansion valve is interdisposed in the refrigerant circuit upstream of the refrigerant heat absorption heat exchanger and a secondary expansion valve is interdisposed in the refrigerant circuit upstream of the flash tank. The flash tank functions as a refrigerant charge storage reservoir wherein refrigerant expanded from a supercritical pressure to subcritical pressure separates into liquid and vapor phases. A refrigerant vapor bypass line is provided to return refrigerant vapor from the flash tank to the refrigerant circuit downstream of the refrigerant heat absorption heat exchanger. The primary expansion valve and a flow control valve interdisposed in the refrigerant vapor bypass provide refrigerant charge management.

IPC 8 full level
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Citation (search report)

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CN106574812A

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DOCDB simple family (application)
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