

Title (en)

REFRIGERANT SYSTEM WITH CASCADED CIRCUITS AND PERFORMANCE ENHANCEMENT FEATURES

Title (de)

KÄLTEMITTELSYSTEM MIT KASKADENKREISLÄUFEN UND LEISTUNGSVERBESSERUNGSMERKMALEN

Title (fr)

SYSTÈME RÉFRIGÉRANT AVEC CIRCUITS EN CASCADE ET CARACTÉRISTIQUES D'AMÉLIORATION DE PERFORMANCE

Publication

EP 2162686 A1 20100317 (EN)

Application

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Priority

US 2007070288 W 20070604

Abstract (en)

[origin: WO2008150289A1] An improved refrigerant system incorporates at least two circuits arranged in a cascaded relationship. Preferably, the upper circuit utilizes a hydrocarbon refrigerant and preferably the lower circuit utilizes CO₂ refrigerant. Preferably, the CO₂ cascaded circuit mainly operates in a subcritical region. To improve the efficiency and capacity control of the cascaded refrigerant system, at least one of the circuits is equipped with performance enhancement features such as, for example, an economized function provided by a flash tank or economizer heat exchanger. Additional enhancement features can also include a liquid-suction heat exchanger and bypass function.

IPC 8 full level

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CPC (source: EP US)

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