

Title (en)

REFRIGERATION PLANT FOR TRANSCRITICAL OPERATION WITH AN ECONOMISER

Title (de)

KÄLTEANLAGE FÜR TRANSKRITISCHE BETRIEBSWEISE MIT ECONOMISER

Title (fr)

SYSTEME FRIGORIFIQUE DESTINE A UN MODE DE FONCTIONNEMENT TRANSCRITIQUE ET DOTE D'UN ECONOMISEUR

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2006092108A1] The invention relates to a device on a compressor for application in refrigeration plants the compression pressure of which lies within the supercritical range for a refrigerant, for example, CO₂. Conventionally on generation of refrigerant effect with a refrigeration process with a supercritical high pressure side, the flash gas component is high on depressurisation in an expansion machine and also in a throttled device. The ratio of refrigeration capacity to drive power, the COP, is correspondingly small. The energy requirement for refrigeration is unacceptably high. In an other embodiment a two-stage depressurisation is thus used, whereby a first flash gas component and a first liquid component are present at raised pressure. The first flash gas component is further compressed to the pressure of the high pressure side and the first liquid is depressurised to the pressure in the liquid separator, whereby the ratio of liquid component and flash gas component is significantly increased. A disadvantage is the requirement for a second compressor with an independent drive.

IPC 8 full level

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