Title (en)

Refrigeration cycle and method of controlling the refrigeration composition ratio of the refrigeration cycle.

Title (de)

Kältekreislauf und Verfahren zur Steuerung der Kältemittelzusammensetzung im Kältekreislauf.

Title (fr)

Cycle frigorifique et procédé de réglage de la composition du réfrigérant dans le cycle frigorifique.

Publication

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Application

EP 94109583 A 19940621

Priority

JP 15324693 A 19930624

Abstract (en)

The composition of a refrigerant within the refrigeration cycle in which a non-azeotrope refrigerant is used is controlled to a predetermined composition. Further, the amount of the refrigerant is detected, and the composition and amount of the refrigerant within the refrigeration cycle are displayed, facilitating the maintenance of the refrigerant. The refrigeration cycle includes a compressor (1), a heat-source-side heat exchanger (2), use-side heat exchangers (20a,20b), and a pressure reducing apparatus (7,21a,21b), in which cycle a non-azeotrope refrigerant is used as a refrigerant. The refrigeration cycle further includes a sensor (8), disposed in a pipe portion where a liquid phase is formed, for detecting the composition of the non-azeotrope refrigerant circulating within the refrigeration cycle, and devices (5,6,10) for controlling the composition to a predetermined composition, a sensor for detecting the amount of refrigerant and a device for displaying the amount of the refrigerant. Since the composition of the refrigerant circulating within the refrigeration cycle is detected and control appropriate for the detected composition is performed, it becomes possible to perform a stable operation even when the refrigerant leaks outside and the composition of the refrigerant varies.

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F25B 49/02; F25B 1/00

IPC 8 full level

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CPC (source: EP)

F25B 9/006 (2013.01); **F25B 13/00** (2013.01); F25B 2400/13 (2013.01); F25B 2400/16 (2013.01)

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EP0854326A3; EP0750166A3; EP1553365A3; EP0898128A3; EP1293735A3; US5927087A; US2024110736A1; EP0732551A3; EP0898133A3; US5987907A; US6032473A; EP0685692A3; EP0715134A3; EP0693663A3; AU683385B2; EP0853221A3; EP0854329A3; EP0854330A3; EP0854331A3; EP2722617A4; WO2009147172A1

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