

Title (en)
REFRIGERATION CYCLE APPARATUS

Title (de)
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)
APPAREIL DE CYCLE DE RÉFRIGÉRATION

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Application
EP 11797842 A 20110621

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Abstract (en)
A refrigeration cycle apparatus 100 includes a compressor 2, a radiator 3, a positive displacement fluid machine 4, an evaporator 7 and an injection flow passage 10f. The positive displacement fluid machine 4 performs (i) a step of drawing, at a first pressure, a refrigerant into a working chamber, (ii) a step of expanding the drawn refrigerant to a second pressure lower than the first pressure and overexpanding further the refrigerant to a third pressure lower than the second pressure, (iii) a step of supplying, through an injection port 30, the refrigerant having the third pressure to the working chamber so as to mix the supplied refrigerant with the overexpanded refrigerant, (iv) a step of recompressing, in the working chamber, the mixed refrigerant to the second pressure by using power recovered from the refrigerant in the step (ii), and (v) a step of discharging the recompressed refrigerant from the working chamber.

IPC 8 full level
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