Title (en)

CONTROL DEVICE OF FREEZER, FREEZER, METHOD FOR CONTROLLING FREEZER, AND PROGRAM FOR CONTROLLING FREEZER

Title (de)

STEUERUNGSVORRICHTUNG FÜR GEFRIERGERÄT, GEFRIERGERÄT, VERFAHREN ZUR STEUERUNG DES GEFRIERGERÄTS UND PROGRAMM ZUR STEUERUNG DES GEFRIERGERÄTS

Title (fr)

DISPOSITIF DE COMMANDE DE CONGÉLATEUR, CONGÉLATEUR, PROCÉDÉ DE COMMANDE DE CONGÉLATEUR ET PROGRAMME DE COMMANDE DE CONGÉLATEUR

Publication

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Application

EP 19782212 A 20190328

Priority

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- JP 2019013853 W 20190328

Abstract (en)

[origin: EP3760945A1] The purpose of the present invention is to provide a control device of a freezer, a freezer, a method for controlling the freezer, and a program for controlling the freezer, in which the temperature of an ejected refrigerant can be preserved while suppressing performance degradation. Provided is a control device (10) of a freezer that comprises: a compressor (2) for compressing a refrigerant; a condenser (3) for condensing the compressed refrigerant; an expansion valve (5) for expanding a liquid refrigerant, the opening degree of the expansion valve being controlled by means of an evaporator outlet superheating degree control that controls the superheating degree of the refrigerant at an outlet of the evaporator (6) to a value within a first predetermined range; and the evaporator (6) for evaporating the refrigerant. When the temperature of the ejected refrigerant exceeds a first threshold, the evaporator outlet superheating degree control is stopped, and the opening degree of the expansion valve (5) is controlled to increase by means of an ejected refrigerant temperature protection control that controls the temperature of the ejected refrigerant to a value within a second predetermined range. When the temperature of the ejected refrigerant is below a second threshold lower than the first threshold, and the superheating degree of the refrigerant at the outlet of the evaporator (6) is greater than or equal to a third threshold, the ejected refrigerant temperature protection control is stopped, and the opening degree of the expansion valve (5) is controlled by means of the evaporator outlet superheating degree control.

IPC 8 full level

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Citation (search report)

- [XYI] JP S6162770 A 19860331 - HITACHI LTD
- [Y] JP S58184454 A 19831027 - HITACHI LTD
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- [A] JP H02233945 A 19900917 - DAIKIN IND LTD
- See references of WO 2019194082A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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