

ABSTRACT

A refrigerator 1 of the present disclosure includes: at least two compressors, namely, a low-stage compressor C1 and a high-stage compressor C₂; an expander T; a cooling part 2 for cooling a cooling object R2 with a refrigerant R1 expanded by the expander T; a refrigerant circulation line 8 for circulating the refrigerant; a bypass line 31 connected to a high-pressure line and a low-pressure line of the refrigerant circulation line 8; a bypass valve 32; a first temperature sensor 33 for detecting a temperature of the refrigerant R1 on an inlet side of the expander T or a second temperature sensor 34 for detecting the temperature of the refrigerant R1 on an outlet side of the expander T; and a controller 40 for controlling an opening degree of the bypass valve 32 and a rotation speed of the refrigerator 1 based on a detection result of the first temperature sensor 33 or the second temperature sensor 34.