

Title (en)  
REFRIGERATION DEVICE

Title (de)  
KÜHLVORRICHTUNG

Title (fr)  
DISPOSITIF DE RÉFRIGÉRATION

Publication  
**EP 3249316 A1 20171129 (EN)**

Application  
**EP 15861606 A 20151112**

Priority  
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Abstract (en)  
The present invention provides a refrigeration apparatus that can prevent supercooling of the inside of a showcase, excessive formation of frost on an evaporator, and liquid floodback to a compressor, and reduce the number of times of the activation and stop of the compressor with relatively simple control over an expansion valve. The refrigeration apparatus includes low stage-side refrigerant circuits each having a low stage-side compressor, a low stage-side gas cooler, a low stage-side expansion valve, and a low stage-side evaporator. The refrigeration apparatus includes a controller that controls the low stage-side expansion valve. The controller calculates refrigerant superheat in the low stage-side evaporator from the refrigerant outlet temperature and refrigerant inlet temperature of the low stage-side evaporator. The controller selectively controls the degree of opening of the low stage-side expansion valve on the basis of the refrigerant superheat or an internal temperature of the showcase.

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