

Title (en)  
AIR CONDITIONING DEVICE

Title (de)  
KLIMAANLAGENVORRICHTUNG

Title (fr)  
DISPOSITIF DE CLIMATISATION

Publication  
**EP 3109566 A1 20161228 (EN)**

Application  
**EP 14883224 A 20140218**

Priority  
JP 2014053809 W 20140218

Abstract (en)  
An air-conditioning apparatus includes a first expansion device provided between a heat source-side heat exchanger and a load-side expansion device, a bypass pipe having one end connected between the first expansion device and the heat source-side heat exchanger, and allowing refrigerant flowing out of the first expansion device to flow through the bypass pipe, an auxiliary heat exchanger cooling refrigerant flowing through the bypass pipe and supplying the cooled refrigerant to a suction part of a compressor, a second expansion device regulating a flow rate of refrigerant allowed to flow into the suction part of the compressor from the auxiliary heat exchanger, a refrigerant flow switching device, and a controller configured to control an opening degree of the first expansion device and an opening degree of the second expansion device. When the heat source-side heat exchanger acts as a condenser or a gas cooler, the controller is configured to control the first expansion device and the second expansion device to allow high-pressure refrigerant to flow into the auxiliary heat exchanger. When the heat source-side heat exchanger acts as an evaporator, the controller is configured to control the first expansion device to allow medium-pressure refrigerant to flow into the auxiliary heat exchanger, and control the second expansion device to allow refrigerant cooled in the auxiliary heat exchanger to flow into the suction part of the compressor.

IPC 8 full level  
**F25B 1/00** (2006.01); **F24F 11/02** (2006.01); **F25B 13/00** (2006.01)

CPC (source: EP US)  
**F24F 11/30** (2017.12 - EP); **F24F 11/83** (2017.12 - EP); **F24F 11/84** (2017.12 - EP US); **F24F 11/89** (2017.12 - EP); **F25B 13/00** (2013.01 - EP); **F25B 2313/021** (2013.01 - EP); **F25B 2313/0233** (2013.01 - EP); **F25B 2313/02741** (2013.01 - EP); **F25B 2400/13** (2013.01 - EP); **F25B 2600/2513** (2013.01 - EP)

Cited by  
CN108548242A; US11022354B2

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
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