

Title (en)  
REFRIGERATION CYCLE DEVICE

Title (de)  
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)  
DISPOSITIF DE CYCLE FRIGORIFIQUE

Publication  
**EP 3318820 B1 20211222 (EN)**

Application  
**EP 16817487 A 20160203**

Priority  
• JP 2015069039 W 20150701  
• JP 2016053144 W 20160203

Abstract (en)  
[origin: EP3318820A1] A refrigeration cycle apparatus includes a refrigerant circuit including a compressor, a load-side heat exchanger, a high-pressure side flow path of an internal heat exchanger, an expansion device, and a heat-source side heat exchanger, an injection circuit branched from between the internal heat exchanger and the expansion device and connected to an injection port of the compressor through another expansion device and a low-pressure side flow path of the internal heat exchanger, a suction temperature sensor measuring a suction temperature of the compressor, a suction pressure detection device measuring a suction pressure of the compressor, a discharge temperature sensor measuring a discharge temperature of the compressor, a discharge pressure sensor measuring a discharge pressure of the compressor, an internal heat exchanger outlet temperature sensor measuring a refrigerant temperature at an outlet of the high-pressure side flow path of the internal heat exchanger, and a controller configured to calculate subcooling at an outlet of the load-side heat exchanger by using a measured value of each of the suction temperature sensor, the suction pressure detection device, the discharge temperature sensor, the discharge pressure sensor, and the internal heat exchanger outlet temperature sensor, and information related to a position of the injection port in a compression unit of the compressor.

IPC 8 full level  
**F25B 1/00** (2006.01); **F25B 31/00** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP)  
**F25B 1/00** (2013.01); **F25B 31/008** (2013.01); **F25B 49/02** (2013.01); **F25B 2400/13** (2013.01); **F25B 2500/31** (2013.01); **F25B 2600/2513** (2013.01); **F25B 2700/1931** (2013.01); **F25B 2700/1933** (2013.01); **F25B 2700/21151** (2013.01); **F25B 2700/21153** (2013.01); **F25B 2700/2117** (2013.01)

Cited by  
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