

Title (en)
REFRIGERATING CYCLE DEVICE

Title (de)
KÜHLKREISLAUFVORRICHTUNG

Title (fr)
DISPOSITIF À CYCLE DE RÉFRIGÉRATION

Publication
EP 2306120 B1 20180228 (EN)

Application
EP 09750429 A 20090331

Priority
• JP 2009056662 W 20090331
• JP 2008134298 A 20080522

Abstract (en)
[origin: US2011023533A1] Provided is a refrigerating cycle apparatus in which, even if large power is required to start up an expander, the expander may be started up by activating a compressor. An air conditioner including a first compressor for compressing a refrigerant, an outdoor heat exchanger for radiating heat of the refrigerant compressed by the first compressor, an expander for decompressing the refrigerant that has passed through the outdoor heat exchanger, an indoor heat exchanger in which the refrigerant decompressed by the expander is evaporated, and a drive shaft for recovering power that is generated when the refrigerant is decompressed by the expander includes an on-off valve which is provided between the expander and the indoor heat exchanger and controls movement of the refrigerant from the expander to the indoor heat exchanger. After the first compressor is started up to increase a pressure of the refrigerant in the expander to a critical pressure or higher, the on-off valve is opened and the expander is started up by a dynamic pressure of the refrigerant.

IPC 8 full level
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CPC (source: EP US)
F25B 1/10 (2013.01 - EP US); **F25B 9/008** (2013.01 - EP US); **F25B 9/06** (2013.01 - EP US); **F25B 13/00** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2313/02533** (2013.01 - EP US); **F25B 2313/02541** (2013.01 - EP US); **F25B 2313/02742** (2013.01 - EP US); **F25B 2400/0401** (2013.01 - EP US); **F25B 2400/072** (2013.01 - EP US); **F25B 2400/14** (2013.01 - EP US); **F25B 2500/26** (2013.01 - EP US)

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