

Title (en)  
REFRIGERATION CYCLE APPARATUS

Title (de)  
KÜHLZYKLUSVORRICHTUNG

Title (fr)  
APPAREIL A CYCLE FRIGORIFIQUE

Publication  
**EP 2389548 A2 20111130 (EN)**

Application  
**EP 09801563 A 20091218**

Priority  
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Abstract (en)  
[origin: WO2010084552A2] A refrigeration cycle apparatus includes an expander-compressor unit (1) having a first motor (12), a second compressor (2) having a second motor (22), and a controller (7). The controller (7) determines the target rotational frequency F1 of the first motor (12) and the target rotational frequency F2 of the second motor (22) for a start-up operation, and determines whether the opening X of an injection valve (61) should be in a fully opened state or in a fully closed state during the start-up operation, based on an outside air temperature and other factors. Then, the controller (7) performs the start-up operation by controlling the rotational frequencies f1 and f2 of the first motor and the second motor to be the determined target rotational frequencies F1 and F2 while maintaining the opening X of the injection valve in the fully opened state or in the fully closed state.

IPC 8 full level  
**F25B 9/06** (2006.01)

CPC (source: EP US)  
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