

Title (en)  
REFRIGERATION CYCLE DEVICE

Title (de)  
KÄLTEKREISLAUFVORRICHTUNG

Title (fr)  
DISPOSITIF À CYCLE FRIGORIFIQUE

Publication  
**EP 3348939 B1 20220323 (EN)**

Application  
**EP 16843748 A 20160810**

Priority  
• JP 2015178773 A 20150910  
• IB 2016054799 W 20160810

Abstract (en)  
[origin: EP3348939A1] A refrigeration cycle device, provided with: a compressor (14); a condenser (11); an evaporator (21); a pressure reducer (23); a subcooler (16) performing subcooling on a refrigerant passing through the condenser (11); a subcooling degree calculation unit (114) estimating a suitable subcooling degree of the refrigerant of an outlet of the subcooler (16) on the basis of a refrigerant cycle amount of a portion from the compressor (14) via the condenser (11) and the subcooler (16), and calculating, on the basis of the estimated suitable subcooling degree, a determination threshold value used for determining a refrigeration measurement; a refrigerant determination unit (115) comparing a measured subcooling degree and the determination threshold value, and thereby determining a refrigerant amount.

IPC 8 full level  
**F25B 49/02** (2006.01); **F24F 11/36** (2018.01); **F24F 11/52** (2018.01); **F24F 11/64** (2018.01); **F25B 40/02** (2006.01)

CPC (source: EP)  
**F24F 11/36** (2017.12); **F24F 11/52** (2017.12); **F24F 11/64** (2017.12); **F25B 40/02** (2013.01); **F25B 49/02** (2013.01); **F25B 2500/05** (2013.01); **F25B 2500/19** (2013.01); **F25B 2500/24** (2013.01); **F25B 2700/21163** (2013.01)

Cited by  
EP4130475A4; US2019323917A1; US11079300B2; US11260728B2; US11971203B2; EP4030122A4; US11549735B2; US11959677B2

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
**EP 3348939 A1 20180718**; **EP 3348939 A4 20190417**; **EP 3348939 B1 20220323**; CN 108027188 A 20180511; CN 108027188 B 20200814; JP 2017053566 A 20170316; JP 6475346 B2 20190227; JP WO2017042649 A1 20180628; WO 2017042649 A1 20170316

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