

Title (en)

REFRIGERATION CIRCUIT

Title (de)

KÄLTEKREISLAUF

Title (fr)

CIRCUIT DE RÉFRIGÉRATION

Publication

EP 3004756 B1 20180411 (EN)

Application

EP 13726194 A 20130529

Priority

EP 2013061099 W 20130529

Abstract (en)

[origin: WO2014191035A1] A refrigeration circuit (1a) comprises in the direction of flow of a circulating refrigerant a compressor unit (2) for compressing the refrigerant, a condenser (4), and at least one evaporator (10) having an expansion device (6) connected upstream thereof. The refrigeration circuit (1a) further comprises a subcooling temperature sensor (6) located at an outlet of the condenser (4) for measuring the temperature of refrigerant leaving the condenser (4), a control unit (12) functionally connected to the subcooling temperature sensor (6) and configured for detecting a leak in the refrigeration circuit (1a) based on the refrigerant temperature measured by the subcooling temperature sensor (6). The condenser (4) comprises a liquefying portion (4a) configured for at least partially liquefying the refrigerant and a subsequent subcooling portion (4b) configured for subcooling and storing liquefied refrigerant, and the outlet of the condenser (4), particularly the outlet of the subcooling portion (4b), is connected to the expansion device (8) of the at least one evaporator (10) through a receiver-free connection line (7).

IPC 8 full level

F25B 40/02 (2006.01); **F25B 49/00** (2006.01)

CPC (source: EP US)

F25B 40/02 (2013.01 - EP US); **F25B 49/005** (2013.01 - EP US); **F25B 2339/044** (2013.01 - EP US); **F25B 2500/19** (2013.01 - EP US);
F25B 2500/222 (2013.01 - EP US); **F25B 2700/2106** (2013.01 - EP US); **F25B 2700/21151** (2013.01 - EP US);
F25B 2700/21152 (2013.01 - EP US); **F25B 2700/21163** (2013.01 - EP US); **F25B 2700/21174** (2013.01 - EP US)

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 2014191035 A1 20141204; CN 105431692 A 20160323; CN 105431692 B 20180102; EP 3004756 A1 20160413; EP 3004756 B1 20180411;
US 2016109170 A1 20160421

DOCDB simple family (application)

EP 2013061099 W 20130529; CN 201380077073 A 20130529; EP 13726194 A 20130529; US 201314893290 A 20130529