

Title (en)

REFRIGERATION AND HEATING SYSTEM

Title (de)

KÜHL- UND HEIZSYSTEM

Title (fr)

SYSTÈME DE RÉFRIGÉRATION ET DE CHAUFFAGE

Publication

EP 3234480 A1 20171025 (EN)

Application

EP 14823983 A 20141219

Priority

EP 2014078847 W 20141219

Abstract (en)

[origin: WO2016096051A1] A method of operating a refrigeration and heating system (2a, 2b) comprises: circulating a refrigerant through a refrigeration circuit (4) which comprises in the direction of flow of the circulating refrigerant: at least one compressor (6a, 6b, 6c); a refrigeration circuit side (8a) of a coupling heat exchanger (8); at least one gas cooler (10); at least one expansion device (12, 14); and at least one evaporator (16); circulating a heating fluid through a heating circuit (20) which comprises a heating circuit side (8b) of the coupling heat exchanger (8) and at least one heat consumer (22); wherein the coupling heat exchanger (8) is configured for transferring heat from the circulating refrigerant to the circulating heating fluid. The method further includes increasing the temperature of the refrigerant entering the at least one gas cooler (10) in order to meet increased heating demands by allowing at least a portion of the heating fluid to flow directly from an outlet to an inlet of the heating circuit side (8b) of the coupling heat exchanger (8) bypassing the at least one heat consumer (22) or by allowing at least a portion of the refrigerant circulating through the refrigeration circuit (4) to bypass the coupling heat exchanger (8).

IPC 8 full level

F25B 9/00 (2006.01); **F25B 29/00** (2006.01); **F25B 40/04** (2006.01); **F25B 41/04** (2006.01); **F25B 49/02** (2006.01)

CPC (source: EP US)

F25B 9/008 (2013.01 - EP US); **F25B 29/003** (2013.01 - EP US); **F25B 40/04** (2013.01 - EP US); **F25B 41/20** (2021.01 - EP US);
F25B 49/02 (2013.01 - EP US); **F25B 49/027** (2013.01 - EP US); **F25B 2309/061** (2013.01 - EP US); **F25B 2339/047** (2013.01 - EP US);
F25B 2400/0403 (2013.01 - US); **F25B 2400/0405** (2013.01 - US); **F25B 2400/053** (2013.01 - US); **F25B 2400/075** (2013.01 - EP US);
F25B 2400/13 (2013.01 - EP US); **F25B 2400/23** (2013.01 - EP US); **F25B 2600/07** (2013.01 - EP US); **F25B 2700/191** (2013.01 - EP US);
F25B 2700/21162 (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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2016096051 A1 20160623; EP 3234480 A1 20171025; US 2017356681 A1 20171214

DOCDB simple family (application)

EP 2014078847 W 20141219; EP 14823983 A 20141219; US 201415537683 A 20141219