

Title (en)

REFRIGERATING CIRCUIT AND METHOD FOR CONTROLLING THE OIL DISTRIBUTION WITHIN THE SAME

Title (de)

KÄLTEKREISLAUF UND VERFAHREN ZUR STEUERUNG DER ÖLVERTEILUNG DARIN

Title (fr)

CIRCUIT DE RÉFRIGÉRATION ET PROCÉDÉ DE COMMANDER DE LA DISTRIBUTION D'HUILE DANS CELUI-CI

Publication

EP 2417405 A1 20120215 (EN)

Application

EP 09776516 A 20090406

Priority

EP 2009002529 W 20090406

Abstract (en)

[origin: WO2010115435A1] A refrigerating circuit according to the invention comprises - in flow direction - a multi-compressor unit (4, 6, 8), a condenser/gas cooler (12), a receiver (14), at least one evaporator (18, 22, 26) having a respective expansion device (16, 20, 24) arranged before it, and conduits circulating a refrigerant containing oil therethrough, wherein the multi-compressor unit (4, 6, 8) comprises a first compressor (4) the rotational speed of which can be controlled and at least one further compressor (6, 8) running at a constant rotational speed, wherein the suction sides and the pressure sides of the compressors (4, 6, 8) are connected in parallel, wherein an oil balance line (30) is provided between the oil sumps of the compressors (4, 6, 8), said oil balance line (30) connecting the oil sumps of the compressors (4, 6, 8) at substantially the same positions of height, and wherein a solenoid valve (32) allowing oil flow in either direction is arranged in the oil balance line (30) between the first compressor (4) and the at least one further compressor (6, 8) for controlling the oil distribution between the oil sumps of the compressors (4, 6, 8) during operation of the compressors (4, 6, 8) of the multi-compressor unit (4, 6, 8).

IPC 8 full level

F25B 31/00 (2006.01)

CPC (source: EP)

F25B 31/004 (2013.01); **F25B 2400/075** (2013.01)

Citation (search report)

See references of WO 2010115435A1

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

WO 2010115435 A1 20101014; CN 102388278 A 20120321; CN 102388278 B 20141119; EP 2417405 A1 20120215; EP 2417405 B1 20200318

DOCDB simple family (application)

EP 2009002529 W 20090406; CN 200980158537 A 20090406; EP 09776516 A 20090406