

Title (en)

HEAT PUMP OR REFRIGERATION DEVICE AND METHOD FOR OPERATING A HEAT PUMP OR REFRIGERATION DEVICE

Title (de)

WÄRMEPUMPE ODER KÄLTEMASCHINE UND VERFAHREN ZUM BETREIBEN EINER WÄRMEPUMPE ODER KÄLTEMASCHINE

Title (fr)

POMPE À CHALEUR OU MACHINE FRIGORIFIQUE ET PROCÉDÉ PERMETTANT DE FAIRE FONCTIONNER UNE POMPE À CHALEUR OU UNE MACHINE FRIGORIFIQUE

Publication

**EP 2321592 B1 20111228 (DE)**

Application

**EP 09782642 A 20090904**

Priority

- EP 2009061496 W 20090904
- DE 102008041939 A 20080910

Abstract (en)

[origin: WO2010029020A1] The invention relates to a method for operating an engine-generator (50), according to which the pressure of a working medium in liquid form is increased, the working medium is subsequently heated and in a subsequent step is expanded under working conditions, is evaporated and then condensed again in a condenser (56). The invention also relates to an engine-generator (50) comprising a pressure reduction unit for a working medium, a condenser (56) for condensing the expanded working medium, a pump (51) for increasing the pressure of the cooled working medium, a heater (54) for raising the temperature of the working medium at least to the evaporation temperature and to lines connecting the aforementioned components. The working medium can thus be conducted in a circuit. According to the invention, the working medium is isothermally expanded after being heated in a liquid column expansion unit (55) which acts as a pressure reduction unit.

IPC 8 full level

**F25B 31/00** (2006.01)

CPC (source: EP)

**F01K 7/00** (2013.01); **F01K 27/005** (2013.01); **F25B 31/004** (2013.01); **F25B 31/023** (2013.01); **F25B 40/00** (2013.01); **F25B 2309/06** (2013.01); **F25B 2400/075** (2013.01); **F25B 2400/14** (2013.01); **F25B 2400/16** (2013.01)

Cited by

CN104005801A

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 SM TR

DOCDB simple family (publication)

**DE 102008041939 A1 20100311**; AT E539304 T1 20120115; EP 2321592 A1 20110518; EP 2321592 B1 20111228; WO 2010029020 A1 20100318; WO 2010029027 A1 20100318

DOCDB simple family (application)

**DE 102008041939 A 20080910**; AT 09782642 T 20090904; EP 09782642 A 20090904; EP 2009061463 W 20090904; EP 2009061496 W 20090904