Title (en)
FUNCTIONAL SYNERGIES OF THERMODYNAMIC CIRCUIT PROCESSES AND HEAT SOURCES

Title (de)
FUNKTIONSSYNERGIEN VON THERMODYNAMISCHEN KREISPROZESSEN UND WÄRMEQUELLEN

Title (fr)
SYNERGIES FONCTIONNELLES DE CYCLES THERMODYNAMIQUES ET DE SOURCES DE CHALEUR

Publication
EP 3163036 B1 20180926 (DE)

Application
EP 16191660 A 20160930

Priority
EP 15190780 A 20151021

Abstract (en)
[origin: WO2017067790A1] The system according to the invention comprises a heat source and a cooling device for discharging the heat from the heat source, wherein the cooling device comprises: a heat exchanger/radiator for transferring heat to a surrounding medium, in particular wherein the radiator is an air cooler and the surrounding medium is air; and a thermodynamic cycle device, in particular an ORC device comprising a working fluid, an evaporator for evaporating the working medium by transferring heat from the heat source to the working medium, an expansion device for generating mechanical energy, and a condenser for condensing the working medium expanded in the expansion device; wherein the cooling device additionally comprises a condenser-coolant circuit for discharging heat out of the condenser of the thermodynamic cycle device via the heat exchanger/radiator. The method according to the invention is suitable for discharging heat from a heat source with a cooling device.

IPC 8 full level
F01K 23/06 (2006.01); **F01K 15/02** (2006.01)

CPC (source: EP US)
F01K 13/02 (2013.01 - US); **F01K 15/02** (2013.01 - EP US); **F01K 23/065** (2013.01 - EP US); **F01K 23/10** (2013.01 - US);
F28F 27/02 (2013.01 - US); F04D 25/04 (2013.01 - 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)
EP 3159506 A1 20170426; **EP 3159506 B1 20200819**; BR 112018007922 A2 20181030; CN 108431376 A 20180821;
CN 108431376 B 20200616; EP 3163036 A1 20170503; EP 3163036 B1 20180926; US 10577984 B2 20200303; US 2018313234 A1 20181101;
WO 2017067790 A1 20170427

DOCDB simple family (application)
EP 15190780 A 20151021; BR 112018007922 A 20161006; CN 201680075472 A 20161006; EP 16191660 A 20160930;
EP 2016073846 W 20161006; US 201615767930 A 20161006