

Title (en)

Method for condenser control in a thermal cycle arrangement and thermal cycle arrangement

Title (de)

Verfahren zur Regelung eines Kondensators in einer thermischen Kreisprozessvorrichtung und thermische Kreisprozessvorrichtung

Title (fr)

Procédé de régulation de condenseur dans un cycle thermique et cycle thermique

Publication

EP 2886811 B1 20170809 (DE)

Application

EP 13198793 A 20131220

Priority

EP 13198793 A 20131220

Abstract (en)

[origin: WO2015090648A1] The invention relates to a method for regulating a condenser (5) in a thermal cycle apparatus, in particular in an ORC apparatus, wherein the thermal cycle apparatus comprises a feed pump (1) for conveying liquid working medium, with an increase in pressure, to an evaporator, the evaporator (2) for evaporating and optionally additionally superheating the working medium with a supply of heat, an expansion machine (3) for generating mechanical energy by expansion of the evaporated working medium, a generator (4) for at least partially converting the mechanical energy into electrical energy, and the condenser (5) for condensing the expanded working medium, and wherein the method comprises the following steps: determining a rotational speed (6) of the generator or of the expansion machine; determining, without the use of a temperature sensor, a temperature of cooling air supplied to the condenser; determining, from the determined generator or expansion machine rotational speed and the determined cooling air temperature, a condensation setpoint pressure at which the net electrical power of the thermal cycle apparatus is at a maximum; and controlling or regulating the condensation pressure, with the condensation setpoint pressure as target value, by adjustment of a condenser fan rotational speed.

IPC 8 full level

F01K 9/00 (2006.01); **F01K 11/00** (2006.01); **F01K 13/02** (2006.01); **F01K 25/08** (2006.01); **F28B 1/06** (2006.01); **F28B 11/00** (2006.01)

CPC (source: EP US)

F01K 9/003 (2013.01 - EP US); **F01K 11/00** (2013.01 - US); **F01K 13/02** (2013.01 - EP US); **F28B 1/06** (2013.01 - EP US); **F28B 11/00** (2013.01 - EP US); **F01K 25/08** (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)

EP 2886811 A1 20150624; **EP 2886811 B1 20170809**; US 10329961 B2 20190625; US 2017002693 A1 20170105; WO 2015090648 A1 20150625

DOCDB simple family (application)

EP 13198793 A 20131220; EP 2014068740 W 20140903; US 201415106709 A 20140903