

Title (en)

Non-azeotropic working fluid mixtures for rankine cycle systems

Title (de)

Nichtazeotrope Arbeitsflüssigkeitsmischungen für Rankine-Kreislaufsysteme

Title (fr)

Mélanges de fluides actifs non azéotrope pour systèmes à cycle de rankine

Publication

**EP 2613026 A3 20170419 (EN)**

Application

**EP 12191261 A 20121105**

Priority

US 201213345330 A 20120106

Abstract (en)

[origin: EP2613026A2] A power generation system (10) includes a non-azeotropic working fluid mixture and a Rankine cycle system (12). The Rankine cycle system (12) includes a turbine generator that is driven by vapor of the first working fluid mixture, and a condenser (16) that exchanges thermal energy between the vapor received from the turbine generator (14) and a cooling medium. The working fluid mixture is characterized by a condenser temperature glide during phase change between approximately five degrees and thirty degrees Kelvin, a condensing pressure between approximately one tenth of one percent and eleven percent of a critical pressure of the working fluid mixture, and a condenser bubble point temperature between approximately one degree and nine degrees Kelvin greater than a temperature at which the cooling medium is received by the condenser (16).

IPC 8 full level

**F01K 23/02** (2006.01); **F01K 25/08** (2006.01)

CPC (source: EP US)

**F01K 23/02** (2013.01 - EP US); **F01K 25/08** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

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**EP 2613026 A2 20130710; EP 2613026 A3 20170419**; CA 2794061 A1 20130706; CA 2794061 C 20150512; CN 103195524 A 20130710; PH 12012000341 A1 20160118; SG 192327 A1 20130830; US 2013174552 A1 20130711

DOCDB simple family (application)

**EP 12191261 A 20121105**; CA 2794061 A 20121101; CN 201210558662 A 20121106; PH 12012000341 A 20121106; SG 2012081618 A 20121105; US 201213345330 A 20120106