

Title (en)

GAS TURBINE POWER PLANT MADE FLEXIBLE

Title (de)

FLEXIBILISIERTES GASTURBINENKRAFTWERK

Title (fr)

CENTRALE ÉLECTRIQUE À TURBINE À GAZ RENDUE FLEXIBLE

Publication

EP 2999869 A1 20160330 (DE)

Application

EP 14725395 A 20140508

Priority

- DE 102013215083 A 20130801
- EP 2014059454 W 20140508

Abstract (en)

[origin: WO2015014508A1] The invention relates to a gas turbine power plant (1), comprising a gas turbine (10). Said gas turbine comprises a compressor (11), a combustion chamber (12), and an expander (13) and is rotationally mechanically coupled to an energisation unit (5), wherein the energisation unit (5) is designed for motor operation of the compressor (11) and for electricity-generating generator operation of the gas turbine (10). The gas turbine power plant also comprises a recuperator (20), which is thermally connected to an exhaust-gas discharge line (14) of the gas turbine (10) in such a way that heat can be transferred from the exhaust-gas flow in the exhaust-gas discharge line (14) to a fluid flow (15) in a fluid line (16) during operation of the gas turbine (10), which fluid flow is fed to the combustion chamber (12). Furthermore, a supply line (17) for water is provided, which supply line is fluidically connected to the gas turbine (10) in such a way that water can be supplied to the gas turbine (10) in order to increase the operating mass flow during operation. The exhaust-gas discharge line (14) is furthermore thermally coupled to at least one heat accumulator (30), such that, during operation of the gas turbine (10), heat of the exhaust-gas flow can be transferred to a heat accumulator medium (35) for storage in the heat accumulator (30).

IPC 8 full level

F02C 1/02 (2006.01); **F02C 3/30** (2006.01); **F02C 6/14** (2006.01); **F02C 6/18** (2006.01)

CPC (source: EP US)

F02C 1/02 (2013.01 - EP US); **F02C 3/305** (2013.01 - EP US); **F02C 6/14** (2013.01 - EP US); **F02C 6/18** (2013.01 - EP US); **F02C 7/10** (2013.01 - US); **F02C 9/16** (2013.01 - US); **F05D 2220/76** (2013.01 - EP US); **Y02E 20/14** (2013.01 - EP US); **Y02E 20/16** (2013.01 - EP US)

Citation (search report)

See references of WO 2015014508A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2015014508 A1 20150205; DE 102013215083 A1 20150205; EP 2999869 A1 20160330; US 2016177827 A1 20160623

DOCDB simple family (application)

EP 2014059454 W 20140508; DE 102013215083 A 20130801; EP 14725395 A 20140508; US 201414907654 A 20140508