Title (en)

Gas Turbine Combustion System and Method of Flame Stabilization in such a System

Title (de)

Gasturbinen-Verbrennungssystem und -verfahren der Flammenstabilisierung in solch einem System

Title (fr)

Système de combustion de turbine à gaz et procédé de stabilisation de la flamme dans un tel système

Publication

EP 2639505 A1 20130918 (EN)

Application

EP 12159203 A 20120313

Priority

EP 12159203 A 20120313

Abstract (en)

A gas turbine combustion system (1) which comprises - a first radial inflow swirler (7) having first radial outer intake openings (13) and first flow passages (11) extending from the first radial outer intake openings (13) to the first radial inner outlet openings (15), each first flow passage (11) including a first angle (±) with respect to the radial direction; - a second radial inflow swirler (17) having second radial outer intake openings (23), second radial inner outlet openings (25) and second flow passages (21) extending from the second radial outer intake openings (23) to the second radial inner outlet openings (25), each second flow passage (21) including a second angle (²) with respect to the radial direction; - where the radial outer circumference of the second radial inflow swirler (17) has a diameter that is smaller than the diameter of the radial inner circumference of the first radial inflow swirler (7) and the second radial inflow swirler (17) is located coaxially with and radially inside the first radial inflow swirler (7). The first angle (±) has a different sign than the second angle (²) with respect to the radial direction.

IPC 8 full level

F23C 7/00 (2006.01); **F23R 3/14** (2006.01); **F23R 3/28** (2006.01)

CPC (source: EP US)

F23C 7/004 (2013.01 - EP); **F23R 3/14** (2013.01 - EP US); **F23R 3/28** (2013.01 - US); **F23R 3/286** (2013.01 - EP US); F23C 2900/07001 (2013.01 - EP US); F23D 2900/14021 (2013.01 - EP)

Citation (applicant)

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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)

EP 2639505 A1 20130918; EP 2825823 A1 20150121; EP 2825823 B1 20160323; US 2015033752 A1 20150205; WO 2013135324 A1 20130919

DOCDB simple family (application)

EP 12159203 A 20120313; EP 12798270 A 20121205; EP 2012074412 W 20121205; US 201214382314 A 20121205