

Title (en)
AXIAL FLOW TURBINE

Title (de)
AXIALSTROMTURBINE

Title (fr)
TURBINE À FLUX AXIAL

Publication
EP 3258063 A1 20171220 (EN)

Application
EP 16749489 A 20160212

Priority
• KR 20150021822 A 20150212
• KR 2016001431 W 20160212

Abstract (en)
The present invention relates to an axial flow turbine, comprising: a rotor mounting part; a housing having a fluid supply part surrounding the rotor mounting part; a rotor which is installed at a rotation shaft installed in the housing and has a plurality of blades installed in a circumferential direction; and a plurality of injection nozzles, installed in the fluid supply part surrounding the rotor mounting part, for spraying a high-pressure fluid toward the blades, wherein the fluid collision surface of the blades installed at the rotor is formed to be inclined at an angle in the rotational direction of the rotor with respect to the normal axis of the rotation center axis, and the injection nozzles formed in the fluid supply part are installed at an angle parallel to the normal direction of the fluid collision surface of the blades. Due to the aforementioned configuration, the present invention provides the effect of maximizing the rotation rate of a turbine while smoothing fluid flow by optimizing the angle of the fluid collision surface of the blades.

IPC 8 full level
F01D 1/08 (2006.01); **F01D 1/10** (2006.01); **F01D 5/14** (2006.01); **F01D 9/04** (2006.01)

CPC (source: CN EP KR US)
F01D 1/026 (2013.01 - US); **F01D 1/08** (2013.01 - CN EP KR US); **F01D 1/10** (2013.01 - CN EP KR US); **F01D 1/22** (2013.01 - EP US); **F01D 5/025** (2013.01 - EP); **F01D 5/14** (2013.01 - CN US); **F01D 5/142** (2013.01 - EP KR); **F01D 9/04** (2013.01 - CN US); **F01D 9/041** (2013.01 - KR); **F01D 9/045** (2013.01 - US)

Cited by
RU2728310C2

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 3258063 A1 20171220; **EP 3258063 A4 20190403**; BR 112017017184 A2 20180403; CN 107257883 A 20171017; JP 2018508696 A 20180329; KR 101578360 B1 20151228; RU 2017131731 A 20190312; RU 2017131731 A3 20190312; US 2018030834 A1 20180201; WO 2016129949 A1 20160818

DOCDB simple family (application)
EP 16749489 A 20160212; BR 112017017184 A 20160212; CN 201680010058 A 20160212; JP 2017542482 A 20160212; KR 20150021822 A 20150212; KR 2016001431 W 20160212; RU 2017131731 A 20160212; US 201615550475 A 20160212