

Title (en)
ROTOR FOR A BOUNDARY LAYER TURBOMACHINE AND BOUNDARY LAYER TURBOMACHINE

Title (de)
ROTOR FÜR EINE GRENZSCHICHT-TURBOMASCHINE UND EINE GRENZSCHICHT-TURBOMASCHINE

Title (fr)
ROTOR POUR TURBOMACHINE À COUCHE LIMITE ET UNE TELLE TURBOMACHINE

Publication
EP 3103962 A1 20161214 (EN)

Application
EP 15171531 A 20150610

Priority
EP 15171531 A 20150610

Abstract (en)
A boundary layer turbomachine is disclosed and described. The boundary layer turbomachine can include a housing defining an interior space and having an inlet opening and an outlet opening to facilitate movement of a fluid through the housing. The boundary layer turbomachine can also include partition circumferentially dividing the interior space into an outer chamber and a rotor chamber located radially inward of the outer chamber. The partition can have partition openings such that fluid is movable through the partition between the outer chamber and the rotor chamber. Additionally, the boundary layer turbomachine can include a rotor assembly disposed in the rotor chamber and configured to rotate about an axis of rotation. The rotor assembly can have a plurality of disks spaced apart along the axis of rotation and defining an interior opening along the axis of rotation. The fluid can pass through gaps between the disks and the interior opening as the fluid moves through the housing.

IPC 8 full level
F01D 1/36 (2006.01); **F04D 17/16** (2006.01)

CPC (source: EP)
F01D 1/36 (2013.01); **F04D 17/161** (2013.01); **F05D 2210/42** (2013.01); **F05D 2210/43** (2013.01); **F05D 2210/44** (2013.01); **F05D 2250/25** (2013.01); **F05D 2250/292** (2013.01); **F05D 2300/603** (2013.01)

Citation (applicant)
• US 1061142 A 19130506 - TESLA NIKOLA [US]
• US 1061206 A 19130506 - TESLA NIKOLA [US]
• US 4100140 A 19780711 - ZAHIR ABDUL-CADER, et al

Citation (search report)
• [XYI] US 4534699 A 19850813 - POSSELL CLARENCE P [US]
• [XY] US 2005019154 A1 20050127 - DIAL DANIEL CHRISTOPHER [US]
• [Y] WO 2012152447 A1 20121115 - AELLA SA [CH], et al
• [Y] WO 2008070369 A2 20080612 - FULLER HOWARD J [US]
• [Y] WO 2005081766 A2 20050909 - GRANDE SALVATORE F III [US], et al
• [Y] GB 2226081 A 19900620 - ROLLS ROYCE PLC [GB]

Cited by
US11692443B2; WO2018047018A3; WO2023089331A1; US10794239B2; US11572788B2

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 3103962 A1 20161214

DOCDB simple family (application)
EP 15171531 A 20150610