

Title (en)

Axial fan with blade leading edge that protrudes axially upstream of the hub and that includes a bend (kink) as seen in a radial direction perpendicular to the radial extension of the blade

Title (de)

Axiallüfter mit einer Schaufelvorderkante, die axial stromauf der Nabe herausragt und einen Knick aufweist, wenn die Schaufel in einer radialen Richtung senkrecht zur radialen Erstreckung der Schaufel gesehen wird

Title (fr)

Ventilateur axial avec un bord d'attaque d'aube s'étendant axialement à l'amont du moyeu et présentant un coude (pli) lorsque l'aube est vue dans une direction radiale orthogonale à la direction d'extension radiale de l'aube

Publication

EP 2884115 A1 20150617 (EN)

Application

EP 14197397 A 20141211

Priority

KR 20130154592 A 20131212

Abstract (en)

Provided is an axial fan. The axial fan includes a hub to which a central shaft is coupled and a plurality of blades coupled to the outside of the hub to rotate. The blade includes a hub connection part defining an end of the blade, the hub connection part being coupled to an outer circumferential surface portion of the hub, a tip defining the other end of the blade, a first wing part extending at a first preset gradient from the tip, and a second wing part extending from the first wing part towards the hub, the second wing part having a second preset gradient.

IPC 8 full level

F04D 29/38 (2006.01); **F04D 29/32** (2006.01)

CPC (source: EP KR US)

F04D 19/00 (2013.01 - KR); **F04D 19/002** (2013.01 - US); **F04D 29/329** (2013.01 - EP US); **F04D 29/38** (2013.01 - KR); **F04D 29/384** (2013.01 - EP US); **F04D 29/403** (2013.01 - US); **F05D 2240/303** (2013.01 - EP US)

Citation (search report)

- [X] US 2378049 A 19450612 - UPSON WALTER L
- [X] US 2013287581 A1 20131031 - ASCHERMANN UWE [DE], et al
- [X] WO 2013154102 A1 20131017 - SHARP KK [JP]
- [XP] WO 2014010556 A1 20140116 - MITSUBISHI ELECTRIC CORP [JP]
- [X] US 2005260075 A1 20051124 - ARINAGA MASAHIRO [JP], et al
- [X] JP 2010007602 A 20100114 - MITSUBISHI ELECTRIC CORP

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 2884115 A1 20150617; **EP 2884115 B1 20190403**; ES 2731810 T3 20191119; KR 102200395 B1 20210108; KR 20150068665 A 20150622; US 2015167677 A1 20150618

DOCDB simple family (application)

EP 14197397 A 20141211; ES 14197397 T 20141211; KR 20130154592 A 20131212; US 201414568606 A 20141212