

Title (en)  
AXIAL FAN

Title (de)  
AXIALLÜFTER

Title (fr)  
VENTILATEUR AXIAL

Publication  
**EP 2646695 B1 20170712 (DE)**

Application  
**EP 11790627 A 20111201**

Priority  
• DE 102010062301 A 20101201  
• EP 2011071579 W 20111201

Abstract (en)  
[origin: WO2012072779A1] The invention relates to an axial fan for delivering cooling air, in particular for an internal combustion engine of a motor vehicle, comprising fan blades (13, 14, 15) which are fastened to a hub (12) and which have a pressure side and a suction side and a trailing edge (16, 17, 18) and a blade depth (t), on the pressure side of which fan blades is arranged a hub ramp (13a, 14a, 15a) which rises counter to the direction of rotation (D) of the axial fan (11), wherein the trailing edge (16, 17, 18) has an outer region (16a, 17a, 18a) situated radially outside the hub ramp (13a, 14a, 15a) and has an inner region (16b, 17b, 18b) situated radially within the hub ramp (13a, 14a, 15a).

IPC 8 full level  
**F04D 29/32** (2006.01); **F04D 25/02** (2006.01)

CPC (source: EP KR US)  
**F04D 19/002** (2013.01 - US); **F04D 25/02** (2013.01 - KR); **F04D 25/022** (2013.01 - EP US); **F04D 29/32** (2013.01 - KR);  
**F04D 29/329** (2013.01 - EP US)

Citation (examination)  
DE 60128435 T2 20070830 - BORGWARNER INC [US]

Cited by  
US11767761B2; USD860427S

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

DOCDB simple family (publication)  
**DE 102010062301 A1 20120606**; BR 112013015751 A2 20160927; BR 112013015751 B1 20201020; CN 103270311 A 20130828; CN 103270311 B 20170531; EP 2646695 A1 20131009; EP 2646695 B1 20170712; JP 2013544337 A 20131212; JP 6245437 B2 20171213; KR 20140002690 A 20140108; RU 2013129920 A 20150110; RU 2608800 C2 20170124; US 2013323072 A1 20131205; WO 2012072779 A1 20120607

DOCDB simple family (application)  
**DE 102010062301 A 20101201**; BR 112013015751 A 20111201; CN 201180057601 A 20111201; EP 11790627 A 20111201; EP 2011071579 W 20111201; JP 2013541366 A 20111201; KR 20137017038 A 20111201; RU 2013129920 A 20111201; US 201113991188 A 20111201