

Title (en)  
AXIAL FAN WITH TIP FENCES

Title (de)  
AXIALLÜFTER MIT SPITZENFÜHRUNG

Title (fr)  
VENTILATEUR AXIAL AVEC BARRIÈRES D'EXTRÉMITÉ

Publication  
**EP 3521634 A1 20190807 (EN)**

Application  
**EP 19154456 A 20190130**

Priority  
US 201862624483 P 20180131

Abstract (en)  
An axial flow fan includes a generally hollow casing 30 defining an inlet end 40 and an outlet end 42 of the axial flow fan. A diameter of the casing 30 increases from the inlet end 40 to the outlet end 42. An impeller 22 is rotatably mounted within the casing 30. The impeller 22 includes a hub 26 and a plurality of fan blades 24 extending from a root 44 located at the hub 26 to a blade tip 32. A diameter of the blade tip 32 of each of the plurality of fan blades 24 increases from the inlet end 40 to the outlet end 42. A tip fence 52 is located at the blade tip 32 of at least one of the plurality of fan blades 24 and a length of the tip fence 52 measured perpendicular to the fan blades 24 is greater than a thickness of the at least one of the plurality of fan blades 24.

IPC 8 full level  
**F04D 29/38** (2006.01); **A47F 3/04** (2006.01); **F04D 29/54** (2006.01)

CPC (source: CN EP US)  
**A47F 3/0408** (2013.01 - CN); **A47F 3/0447** (2013.01 - US); **F01D 5/143** (2013.01 - US); **F01D 5/20** (2013.01 - US); **F01D 11/08** (2013.01 - US); **F04D 19/002** (2013.01 - US); **F04D 29/325** (2013.01 - CN); **F04D 29/329** (2013.01 - CN); **F04D 29/384** (2013.01 - EP US); **F04D 29/388** (2013.01 - CN); **F04D 29/547** (2013.01 - EP); **F04D 29/666** (2013.01 - CN); **A47F 3/0408** (2013.01 - US); **F04D 29/329** (2013.01 - US); **F04D 29/547** (2013.01 - US); **F04D 29/666** (2013.01 - US); **F05B 2240/11** (2013.01 - US); **F05D 2240/307** (2013.01 - EP US)

Citation (search report)  
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• [XY] WO 0004292 A1 20000127 - KEENLINK INTERNATIONAL LTD [CN], et al  
• [YA] FR 1399313 A 19650514 - ROTRON MFG COMPANY  
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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)  
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DOCDB simple family (application)  
**EP 19154456 A 20190130**; CN 201910103496 A 20190131; ES 19154456 T 20190130; US 201916261380 A 20190129