

Title (en)  
BLOWER AND AIR CONDITIONING APPARATUS HAVING THE SAME

Title (de)  
GEBLÄSE UND KLIMAAANLAGE DAMIT

Title (fr)  
SOUFFLANTE ET APPAREIL DE CLIMATISATION DOTÉ DE CELLE-CI

Publication  
**EP 3619436 A4 20200513 (EN)**

Application  
**EP 18797937 A 20180511**

Priority  
• JP 2017096039 A 20170512  
• KR 20180037531 A 20180330  
• KR 2018005435 W 20180511

Abstract (en)  
[origin: KR20180124714A] Provided are a blower with high efficiency and low noise and an air conditioner having the same. The blower of the air conditioner comprises: a fan having a hub and at least one wing disposed on an outer circumferential surface of the hub; a motor for rotating the hub; a shroud formed to cover around the fan; and at least one actuator installed in the shroud and forming airflow in the inner circumferential surface of the shroud.

IPC 8 full level  
**F04D 29/52** (2006.01); **F04D 29/16** (2006.01); **F04D 29/68** (2006.01); **F24F 1/38** (2011.01); **H05H 1/24** (2006.01)

CPC (source: EP KR US)  
**F04D 29/164** (2013.01 - EP); **F04D 29/384** (2013.01 - EP); **F04D 29/526** (2013.01 - EP); **F04D 29/563** (2013.01 - KR); **F04D 29/667** (2013.01 - KR); **F04D 29/687** (2013.01 - EP); **F24F 1/38** (2013.01 - KR); **H05H 1/2406** (2013.01 - EP KR US); **H05H 1/2425** (2021.05 - EP); **F05B 2240/30** (2013.01 - EP); **F05B 2260/96** (2013.01 - EP); **F05B 2270/20** (2013.01 - EP); **F05D 2240/307** (2013.01 - EP); **F05D 2270/172** (2013.01 - EP); **F15D 1/0075** (2013.01 - EP)

Citation (search report)  
• [YA] US 2017130723 A1 20170511 - KOSAKA SYO [JP], et al  
• [YA] US 2009065064 A1 20090312 - MORRIS SCOTT CHRISTOPHER [US], et al  
• [A] JP 2012189215 A 20121004 - TOSHIBA CORP  
• [A] EP 2884823 A1 20150617 - NAT INST OF ADVANCED IND SCIEN [JP]  
• See references of WO 2018208119A1

Cited by  
CN115443382A

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)  
EP 3619436 A1 20200311; EP 3619436 A4 20200513; EP 3619436 B1 20240117; JP 2018193876 A 20181206; KR 102455234 B1 20221017; KR 20180124714 A 20181121

DOCDB simple family (application)  
EP 18797937 A 20180511; JP 2017096039 A 20170512; KR 20180037531 A 20180330