

Title (en)  
MULTIBLADE CENTRIFUGAL FAN

Title (de)  
ZENTRIFUGALGEBLÄSE MIT MEHREREN SCHAUFELN

Title (fr)  
VENTILATEUR CENTRIFUGE MULTI-PALES

Publication  
**EP 3505769 A1 20190703 (EN)**

Application  
**EP 18188101 A 20180808**

Priority  
JP 2017249168 A 20171226

Abstract (en)  
In the multiblade centrifugal fan including the impeller 1 and a scroll casing 2 disposed to surround the impeller 1, the holding ring 6 of the impeller 1 includes a holding ring first end face 6a which is substantially vertical to a center axis of the impeller 1 and is an endmost part of the impeller 1, a holding ring inner surface 6c which is substantially parallel to the center axis of the impeller 1 and connected with the blades 5, and a connection surface 6e configured between the holding ring first end face 6a and the holding ring inner surface 6c.

IPC 8 full level  
**F04D 29/16** (2006.01); **F04D 29/28** (2006.01)

CPC (source: CN EP)  
**F04D 25/08** (2013.01 - CN); **F04D 29/162** (2013.01 - EP); **F04D 29/281** (2013.01 - CN); **F04D 29/282** (2013.01 - EP); **F04D 29/30** (2013.01 - CN); **F04D 29/666** (2013.01 - CN); **F04D 29/667** (2013.01 - CN)

Citation (applicant)  
JP 2013050031 A 20130314 - HITACHI APPLIANCES INC

Citation (search report)  
[X] JP 2012140881 A 20120726 - DAIKIN IND LTD

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 3505769 A1 20190703**; **EP 3505769 B1 20210407**; CN 109958633 A 20190702; CN 109958633 B 20220218; ES 2871900 T3 20211102; JP 2019113037 A 20190711; JP 6844526 B2 20210317

DOCDB simple family (application)  
**EP 18188101 A 20180808**; CN 201810938653 A 20180817; ES 18188101 T 20180808; JP 2017249168 A 20171226