

Title (en)

AIR-OUTLET PROTECTION STRUCTURE, OUTDOOR UNIT OF AIR CONDITIONER AND METHOD FOR DESIGNING AIR-OUTLET PROTECTION STRUCTURE

Title (de)

LUFTAUSLASS-SCHUTZSTRUKTUR, AUSSENEINHEIT EINER KLIMAAANLAGE UND VERFAHREN ZUM ENTWURF DER LUFTAUSLASS-SCHUTZSTRUKTUR

Title (fr)

STRUCTURE DE PROTECTION DE SORTIE D'AIR, UNITÉ EXTÉRIEURE DE CLIMATISEUR ET PROCÉDÉ DE CONCEPTION POUR STRUCTURE DE PROTECTION DE SORTIE D'AIR

Publication

EP 3121451 A4 20171101 (EN)

Application

EP 14886189 A 20141219

Priority

- CN 201410099182 A 20140317
- CN 2014094423 W 20141219

Abstract (en)

[origin: US2016305454A1] The invention discloses an air outlet protection structure, an outdoor unit of an air conditioner and a method for designing an air outlet protection structure. The air outlet protection structure comprises: a central circular disk (10); and a radiating rib (20), extending from an outer edge of the central circular disk (10) to a direction away from the central circular disk (10). An included angle between a first side surface (21) of the radiating rib (20) and a central axis of the central circular disk (10) is α , as formula (I). The invention is determined according to the characteristics of a flow field of an air duct, and can reduce the hindering effect of an air outlet protection apparatus on a fluid as far as possible, thereby improving the air output volume of a fan and reducing the noise of the entire outdoor unit of the air conditioner.

IPC 8 full level

F04D 29/54 (2006.01); **F04D 29/66** (2006.01); **F04D 29/70** (2006.01); **F24F 1/40** (2011.01); **F24F 1/56** (2011.01); **F24F 13/24** (2006.01); **F24F 13/08** (2006.01)

CPC (source: CN EP US)

F04D 29/544 (2013.01 - EP US); **F04D 29/663** (2013.01 - EP US); **F04D 29/703** (2013.01 - EP US); **F24F 1/06** (2013.01 - CN); **F24F 1/40** (2013.01 - CN EP US); **F24F 1/56** (2013.01 - CN EP US); **F24F 13/08** (2013.01 - CN); **F24F 13/24** (2013.01 - US); **F05D 2250/52** (2013.01 - EP US); **F24F 2013/088** (2013.01 - EP US)

Citation (search report)

- [X] JP 2004156883 A 20040603 - DAIKIN IND LTD
- [X] EP 1120571 A1 20010801 - DAIKIN IND LTD [JP]
- [I] JP 2003035438 A 20030207 - HITACHI LTD
- See references of WO 2015139491A1

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)

US 2016305454 A1 20161020; CN 104930604 A 20150923; CN 104930604 B 20180227; EP 3121451 A1 20170125; EP 3121451 A4 20171101; WO 2015139491 A1 20150924

DOCDB simple family (application)

US 201415101618 A 20141219; CN 2014094423 W 20141219; CN 201410099182 A 20140317; EP 14886189 A 20141219