

Title (en)
SIROCCO FAN AND AIR CONDITIONER USING THE SAME

Title (de)
SIROCCO-LÜFTER UND DIESEN VERWENDENDE KLIMAAANLAGE

Title (fr)
VENTILATEUR SIROCCO ET CLIMATISEUR L'UTILISANT

Publication
EP 2314880 A1 20110427 (EN)

Application
EP 08791016 A 20080710

Priority
JP 2008062442 W 20080710

Abstract (en)
To provide a sirocco fan configured to reduce a sound that is generated at a time when a predetermined amount of a blowing-out air volume is supplied, and an air-conditioning apparatus using the same. A sirocco fan 100 with respect to the present invention is characterized in that in the sirocco fan has a suction inlet 2a formed on an extension line of a rotation center of a fan 1 and on both side surfaces of a scroll casing 2, and in a case that a ventilation resistance in a air path 2c is defined as P[Pa], an amount of air sucked in from the suction inlet 2a is defined as Q[m³ / min], a width in a direction of a rotation axis of the fan 1 is defined as L[mm], k is defined as a constant, a height of the scroll casing 2 is defined as H = 246k[mm], and P/Q 2 is defined as a loss coefficient $\frac{3}{4}[\text{Pa}/(\text{m}^3/\text{min})^2]$, the equation: $f(k^{\frac{3}{4}}) = 0.34947(k^{\frac{3}{4}})^2 - 1.0554(k^{\frac{3}{4}}) + 1.8$ is satisfied, and the inequality: $0.75f(k^{\frac{3}{4}}) \leq L/H \leq f(k^{\frac{3}{4}})$ is satisfied within a range of $0.1 \leq k^{\frac{3}{4}} \leq 0.4$.

IPC 8 full level
F04D 29/42 (2006.01); **F04D 29/66** (2006.01)

CPC (source: EP)
F04D 29/4213 (2013.01); **F04D 29/4226** (2013.01); **F04D 29/667** (2013.01)

Cited by
US10302096B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
EP 2314880 A1 20110427; **EP 2314880 A4 20110810**; **EP 2314880 B1 20130109**; AU 2008359151 A1 20100114;
AU 2008359151 B2 20110728; CN 102066771 A 20110518; CN 102066771 B 20121212; ES 2402790 T3 20130509; JP 4660634 B2 20110330;
JP WO2010004628 A1 201111222; KR 101045750 B1 20110630; KR 20100134684 A 20101223; TW 201002944 A 20100116;
TW I354735 B 20111221; WO 2010004628 A1 20100114

DOCDB simple family (application)
EP 08791016 A 20080710; AU 2008359151 A 20080710; CN 200880129867 A 20080710; ES 08791016 T 20080710;
JP 2008062442 W 20080710; JP 2010519591 A 20080710; KR 20107023511 A 20080710; TW 97130507 A 20080811