

Title (en)
Outdoor unit of air conditioner

Title (de)
Außenraumeinheit für Klimaanlage

Title (fr)
Unité extérieure pour climatiseur

Publication
EP 2241830 A2 20101020 (EN)

Application
EP 10001910 A 20100222

Priority
JP 2009084746 A 20090331

Abstract (en)
There is provided an outdoor unit in which high operation reliability is ensured by cooling a heat sink having heat radiation fins effectively, and preventing damages of a power module due to heat. An outdoor unit 1 includes a partition plate 3 provided upright so as to extend from a bottom plate 2 of the outdoor unit 1 to halfway to a top thereof; an electric component box 14 placed on the partition plate 3 and configured to divide the interior of the outdoor unit into a machinery chamber M and a heat exchanger chamber H in cooperation with the partition plate; an electronic substrate 13 stored in the electric component box; a compressor 4 provided in the machinery chamber; a propeller fan 6 and a heat exchanger 5 provided in the heat exchanger chamber; in which an electric component partition plate 15 configured to divide the interior of the electric component box and the heat exchanger chamber is inclined so that an extended line thereof toward a front surface of the outdoor unit intersects a line of projection of a front edge of a vane 12 of the propeller fan, the electronic substrate is fixed to the electric component partition plate, a heat sink 17 being in contact with the back side of the electronic substrate is fixed to extend in parallel to the electric component partition plate, a plurality of heat radiation fins 16 are formed on one surface of the heat sink so as to project therefrom toward the heat exchanger chamber and extend in parallel to a flow of air on the electric component partition plate.

IPC 8 full level
F24F 1/00 (2011.01); **F24F 5/00** (2006.01)

CPC (source: EP)
F24F 1/24 (2013.01); **F24F 1/46** (2013.01); **F24F 1/54** (2013.01)

Citation (applicant)
JP S63140232 A 19880611 - HITACHI LTD

Cited by
CN107192043A; CN104776518A; CN111121176A; CN103673136A; CN106839164A; CN113405167A; CN106196336A; CN107465366A; CN111684209A; US10429089B2; WO2022042556A1; US11879648B2; US11956926B2

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 MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2241830 A2 20101020; **EP 2241830 A3 20140430**; **EP 2241830 B1 20171025**; AU 2010200570 A1 20101014; AU 2010200570 B2 20101223; JP 2010236781 A 20101021

DOCDB simple family (application)
EP 10001910 A 20100222; AU 2010200570 A 20100216; JP 2009084746 A 20090331