

Title (en)
Ventilator unit

Title (de)
Lüfterbaueinheit

Title (fr)
Dispositif de ventilation

Publication
EP 2876305 B1 20170809 (DE)

Application
EP 14187394 A 20141002

Priority
DE 102013223983 A 20131125

Abstract (en)
[origin: US2015147170A1] The invention relates to a modular fan unit of a diagonal and/or axial fan. According to the invention, the modular fan unit has a housing that has been provided with an inlet opening and an outflow opening. The housing accommodates a fan, whereby the fan can be an axial fan or a radial fan. In any case, the fan conveys the air at least in the axial direction. The housing is divided perpendicularly to the middle axis (X-X) of the fan into at least two housing halves that are joined to each other, namely, the motor holding part and the air inlet part. The housing forms a chamber in which the blades of the fan are accommodated so as to rotate around the axis (X-X) of the fan. Moreover, the housing has a circumferential edge area in the vicinity of which the housing has a thickness B extending in the axis direction (X-X) of the fan. The motor holding part has a dimension R as the maximum extension in the edge area in the axis direction (X-X) of the fan (150). Moreover, the chamber has an extension in the axis direction (X-X) of the fan at the height of the dimension L, whereas the extension of the air inlet part in the axis direction (X-X) of the fan has a dimension T in the area of the chamber. By selecting a ratio of the dimension B to the dimension R with respect to the ratio of the dimension L to the dimension T within the range from 0.9 to 1.2, the noise emission of the fan during operation is minimized. As a result, no subsequent measures have to be taken to damp the noise emitted. Noise-damping layers that would increase the physical size of the modular fan unit are not necessary, as a result of which the outer diameter of the modular fan unit is kept to a minimum.

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Cited by
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