

Title (en)
Ventilator.

Title (de)
Ventilator.

Title (fr)
Ventilateur.

Publication
EP 0180176 A1 19860507 (DE)

Application
EP 85113684 A 19851028

Priority
DE 3439539 A 19841029

Abstract (en)
1. Fan with a casing jacket constructed as a pipe section, with an electric drive motor mounted coaxially within the casing jacket, with spokes for fixing the drive motor stator to the casing jacket and which extend within the latter at one end thereof, with an impeller having a hub, which carries a ring of blades and has an outer face which, in the vicinity of the intake, widens conically in the flow direction and to which the blades of the ring of blades are fixed, with a flow channel which is externally bounded by the inner face of the casing jacket and internally bounded by the outer face of the hub, in which a drive motor and the impeller extend coaxially and completely within the casing jacket, in which the inner face of the casing jacket has its smallest diameter in the central area, related to the axial length of the impeller, characterized in that the outer face (13) of hub (27) is axially continuously widened over its entire length and that the inner face (15) of the casing jacket (1) has a constriction (35) extending over the entire circumference covered by the impeller (23) and following the constriction widens over the entire circumference to a larger diameter towards the suction and pressure side.

Abstract (de)
Bei einem Axialventilator, der innerhalb eines quadratzylindrischen Raumes untergebracht ist, der durch zwei quadratische Flansche 40, 41 begrenzt ist, ist auf den Rotor 10 des Antriebsmotors 4 ein Ring 12 gesteckt, der eine Außenfläche 13 aufweist, die sich konisch in Strömungsrichtung gemäß Pfeil 14 erweitert. Diese Außenfläche begrenzt den Strömungskanal 14 nach innen und bedingt eine Erhöhung des Ventilatordrucks.

IPC 1-7
F04D 25/06; **F04D 29/54**

IPC 8 full level
F04D 25/06 (2006.01); **F04D 29/54** (2006.01)

CPC (source: EP)
F04D 25/0613 (2013.01); **F04D 29/545** (2013.01)

Citation (search report)
• [Y] FR 2291384 A1 19760611 - PAPST MOTOREN KG [DE]
• [Y] EP 0077039 A2 19830420 - NISSAN MOTOR [JP]
• [Y] GB 858640 A 19610111 - JACOBUS CONSTANT VAN RIJN
• [Y] US 2536130 A 19510102 - HERRMAN DONALD D
• [Y] FR 2497883 A1 19820716 - ETRI SA [FR]
• [A] DE 1728338 A1 19710722 - PAPST HERMANN
• [A] EP 0100078 A1 19840208 - PAPST MOTOREN GMBH & CO KG [DE]

Cited by
US5695318A; US5217351A; EP0926057A2; WO9105169A1

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DOCDB simple family (publication)
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