

Title (en)
MINIATURE FAN OR MICRO-FAN

Title (de)
KLEIN- ODER KLEINSTLÜFTER

Title (fr)
VENTILATEUR MINIATURE OU MICRO-VENTILATEUR

Publication
EP 1464106 A1 20041006 (DE)

Application
EP 02795111 A 20021206

Priority
• DE 20201272 U 20020111
• EP 0213822 W 20021206

Abstract (en)
[origin: WO03058796A1] The invention relates to a miniature fan or a micro-fan (200). Said fan comprises a fan housing (150), through which a substantially annular air duct extends in an axial direction, an electronically switchable external-rotor motor (202) being located in a central section of the air duct. The external rotor of said motor, which is equipped with at least one permanent magnet (86), bears a fan impeller (204), which is rotatably positioned in the air duct. The fan also comprises a printed circuit board configuration (168), which has a motor section that is located in the central section of the air duct and bears at least one galvanomagnetic rotor position sensor, which can be controlled by the magnetic field of the permanent magnet (86) that is provided on the external rotor. The configuration also comprises a component section for receiving electronic components (170) of the external rotor motor, said section being arranged essentially outside the air duct and a bridge section, used to electrically connect the motor section of the printed circuit board configuration to the component section (168).

IPC 1-7
H02K 29/08; **H02K 11/00**

IPC 8 full level
F04D 25/06 (2006.01); **H02K 11/215** (2016.01); **H02K 11/33** (2016.01); **H02K 29/08** (2006.01); **H02K 7/14** (2006.01)

CPC (source: EP US)
F04D 25/0633 (2013.01 - EP US); **F04D 25/0646** (2013.01 - EP US); **H02K 11/215** (2016.01 - EP US); **H02K 11/33** (2016.01 - EP US); **H02K 29/08** (2013.01 - EP US); **H02K 7/14** (2013.01 - EP US)

Citation (search report)
See references of WO 03058796A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)
DE 20219409 U1 20030327; AU 2002361020 A1 20030724; EP 1464106 A1 20041006; US 2005106046 A1 20050519; WO 03058796 A1 20030717

DOCDB simple family (application)
DE 20219409 U 20021214; AU 2002361020 A 20021206; EP 0213822 W 20021206; EP 02795111 A 20021206; US 50054104 A 20040701