

Title (en)

AEROGENERATOR WITH FREE INTERNAL FLOW ROTOR

Title (de)

WINDGENERATOR MIT ROTOR MIT FREIEM INTERNEN FLUSS

Title (fr)

AÉROGÉNÉRATEUR DOTÉ D'UN ROTOR À ÉCOULEMENT INTERNE LIBRE

Publication

EP 2459871 A2 20120606 (EN)

Application

EP 10754561 A 20100730

Priority

- IT PI20090096 A 20090731
- IB 2010053481 W 20100730

Abstract (en)

[origin: WO2011013105A2] The present invention concerns an innovative rotor (1') for an aero-generator comprising an upper bulkhead (3), a lower bulkhead (2) and a rotational axis (7) around which the rotor is rotatable. A plurality of blades (1) are connected by one of their end to the upper bulkhead (3) and by the opposed end to the lower bulkhead (2) in such a way as to form an internal chamber (20), rotatable around the said rotational axis (7). The blades, of a predetermined airfoil, further result distanced among them to allow the passage through the chamber (20) of a flow, preferably an air flow, and are arranged according to a certain blade pitch angle in such a way that, in use, when the flow collides with the chamber (20), it can go into the chamber (20) from a side undergoing a first deviation and go out from the opposite side further undergoing a second deviation, generating lift on the blades that it collides with and therefore causing a rotation of the rotor (1'). In accordance with the invention, the blades have an airfoil with high curvature and are further arranged according to an angle of incidence comprised within a variable range between 30° and 60°, preferably between 37° and 52°, in such a way as to increase the lift forces.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2011013105A2

Citation (examination)

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