

Title (en)

SAVONIUS ROTOR, ROTOR MODULE, INSTALLATION AND APPLICATIONS THEREOF

Title (de)

SAVONIUS-ROTOR, ROTORMODUL, ANLAGE UND ANWENDUNGEN DAVON

Title (fr)

ROTOR DE SAVONIUS, MODULE DE ROTOR, INSTALLATION ET APPLICATIONS CORRESPONDANTES

Publication

EP 3452718 A1 20190313 (EN)

Application

EP 16728379 A 20160504

Priority

IB 2016052537 W 20160504

Abstract (en)

[origin: WO2017191492A1] Savonius rotor, comprising an axis of rotation positioned orthogonally to the direction of a fluid flowing towards and around it, and at least a first blade and at least a second blade, the blades being symmetrically located around said axis of rotation without being directly attached to said axis, thereby providing a central fluid passage for passage of fluid between said at least first and said at least second blade and around the axis of rotation, wherein each said blade comprises a longitudinal axis which is parallel to said axis of rotation, a leading edge located at a point furthest away from said axis of rotation of said blade and a trailing edge located at a point closest to said axis of rotation; each said leading edge and said trailing edge define a peripheral surface located around said longitudinal axes of said blades; each said peripheral blade surface comprises a front face, and a rear face, the front face extending from said leading edge towards said trailing edge and being defined by a first spline curve having a first plurality of contiguous radii of curvature, the rear face extending from said trailing edge towards said leading edge and being defined by a second spline curve having a second plurality of contiguous radii of curvature, said second spline curve being different to said first spline curve; each blade comprising a respective height of said front face and a respective height of said rear face; wherein each said front face height, rear face height, first spline curve and second spline curve define a blade volume that is configured to optimize transfer of energy from the fluid flowing onto and around each said blade.

IPC 8 full level

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CPC (source: EP)

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