

Title (en)

A METHOD FOR REDUCTION OF AXIAL POWER VARIATIONS OF A WIND POWER PLANT

Title (de)

VERFAHREN ZUR REDUZIERUNG VON AXIALKRAFTVARIATIONEN BEI EINEM WINDKRAFTWERK

Title (fr)

PROCEDE DE REDUCTION DES VARIATIONS DE PUISSANCE AXIALE D'UNE EOLIENNE

Publication

**EP 1738073 A1 20070103 (EN)**

Application

**EP 05731806 A 20050318**

Priority

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Abstract (en)

[origin: WO2005090781A1] A method which continuously reduces the variations of the rotor axial force and thus reduces fatigue loads on rotor blades and tower, whilst the resultant output to the generator is not significantly affected or is maintained within acceptable limits in relation to limitations of the drive gear, generator and power grid. A method of using the rotor axial force to actively counter the motions of a floating power plant. The method of using the rotor axial force to actively counter the motions of a floating power plant. The method also describes how rotational forces about the vertical axis (12) of the tower (4) are controlled and countered by cyclic variation of pitch angles and associated forces on the individual rotor blade. The method also describes how the aerodynamic force variation on each individual blade as a consequence of different wind velocities at different heights (vertical wind shear) and in the horizontal direction parallel to the rotor plane (horizontal wind shear) can be reduced.

IPC 8 full level

**F03D 7/02** (2006.01); **F03D 7/04** (2006.01); **F03D 11/00** (2006.01)

IPC 8 main group level

**F03D** (2006.01)

CPC (source: EP KR NO US)

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