

Title (en)

A WIND POWER PLANT WITH EXTRA SET OF BLADES

Title (de)

WINDKRAFTANLAGE MIT ZUSÄTZLICHEM SCHAUFELSATZ

Title (fr)

CENTRALE EOLIENNE AVEC JEU SUPPLEMENTAIRE D AUBES

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Application

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Priority

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- DK PA200501626 A 20051121

Abstract (en)

[origin: WO2007057021A1] The present invention relates to a wind power plant with a first set with at least one blade mounted on a shaft and at least one second set with at least one blade mounted on the same shaft and mounted such that the blade sets will have the same direction of revolution and the same number of revolutions. The second set of blades has a length which is smaller than that of the first set of blades and has another optimal tip speed ratio than the first set of blades, whereby the two sets of blades are optimised with regard to power output at the same number of revolutions. The ratio between the lengths of the two sets of blades can be determined approximately by the ratio between the optimal tip speed ratios of the two sets of blades. Alternatively the second set of blades can be constructed to have an optimal tip speed ratio, which is determined on the basis of the ratio between the length of the two sets of blades and the optimal tip speed ratio for the one set of blades. The two or more sets of blades can be placed either right behind each other or in the same rotor plane and, according to the invention, the two sets of blades can be constituted by a small wind rose and a larger fast-runner. The invention further relates to use of such wind power plant.

IPC 8 full level

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