

The invention relates to devices for wind-to-electric power conversion, namely for conversion of air flow power actuated by the road traffic.

The wind turbine actuated by the road traffic flow, according to the first variant, includes a base, onto which there is installed a fixed vertical axle (4), onto which there is fixed a mantle. Into the mantle there is installed an electric generator (14), the rotor (15) of which is joined with a shaft (6) with blades (7). Novelty consists in that the shaft (6) with blades (7) is made hollow and supported onto a fixed vertical axle (4) in bearings (5). The profile of the blades (7) in longitudinal section is described by a logarithmic spiral, the curvature radius of which is smaller at the periphery of the blade (7), and the number of blades (7) constitutes at least two. In the upper part of the hollow shaft (6), inside, there is fixed a mobile gear wheel (8), kinematically joined by means of a satellite gear unit (9) with the fixed gear wheel (12), rigidly joined with the mantle of the electric generator (14). The crank (11), onto which there is installed the satellite gear unit (9), is rigidly coupled with the rotor (15) of the electric generator (14).

In the wind turbine actuated by the road traffic flow, according to the second variant, the crank is kinematically joined by means of a unidirectional coupling with flywheel, fixed onto the rotor of the electric generator.

In the wind turbine actuated by the road traffic flow, according to the second variant, the mobile wheel is made in the form of a friction wheel, kinematically joined by means of the friction contacts of the satellite gear unit with the fixed friction wheel.

Claims: 3

Fig.: 11

