

MAGNUS-TYPE WIND POWER GENERATOR

ABSTRACT

To provide a Magnus-type wind power generator capable of reducing the effects of wind resistance applied to the spiral ribs in the distal-end regions of the rotary columns, and enhancing power generating efficiency.

A Magnus-type wind power generator (1) in which rotary columns (7) rotate about the axes of the rotary columns (7), whereby a horizontal rotary shaft (5) is rotated by Magnus lift that occurs due to interaction of wind power with the rotation of the rotary columns (7), and a power generating mechanism (3) is driven, wherein an external peripheral surface of the rotary columns (7) has a structure in which spiral ribs (8a, 8b, 8c) formed in a convex shape are provided, and a flow component (V) of air at least parallel to the axes of the rotary columns (7) is generated on the external peripheral surfaces of the rotary columns (7) by the spiral ribs (8a, 8b, 8c); and the spiral ribs (8a, 8b, 8c) are formed so that a lead angle (θ) thereof is smaller at a distal end of the rotary columns (7) than at a proximal end of the rotary columns (7) near the horizontal rotary shaft (5).

Fig. 4