Vertical windmill blades

Vertical windmill blades

,,?,?,? """",,;? 2011...

Savonius wind turbines are a type of vertical-axis wind turbine (VAWT), used for converting the force of the wind into torque on a rotating shaft. The turbine consists of a number of aerofoils, usually--but not always--vertically mounted on a rotating shaft or framework, either ground stationed or tethered in airborne systems.

For example, an oil-barrel sized Savonius rotor with h=1 m and r=0.5 m under a wind of v=10 m/s, will generate a maximum power of 120 W and a maximum angular speed of 20 rad/s (190 revolutions per minute).

Savonius turbines are used whenever cost or reliability is much more important than efficiency.

The most ubiquitous application of the Savonius wind turbine is the Flettner ventilator, which is commonly seen on the roofs of vans and buses[where?] and is used as a cooling device. This rotor was developed for ventilation by the German aircraft engineer Anton Flettner in the 1920s.[10] It uses the Savonius wind turbine to drive an extractor fan. The vents are still manufactured in the UK by Flettner Ventilator Limited.[11]

Specifically constructed Savonius wind turbines have been used to provide power to autonomous neutrino detector stations of the ARIANNA experiment on the Ross-Ice Shelf in Antarctica.[12]

In Europe, small Savonius wind turbines can sometimes be seen used as "animated" advertising signs in which the rotational movement helps to draw attention to the item advertised. They sometimes feature a simple two-frame animation.[citation needed]

Data are available on request from the authors.

Vertical axis wind turbine

Horizontal axis wind turbine

Web: https://www.kary.com.pl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346