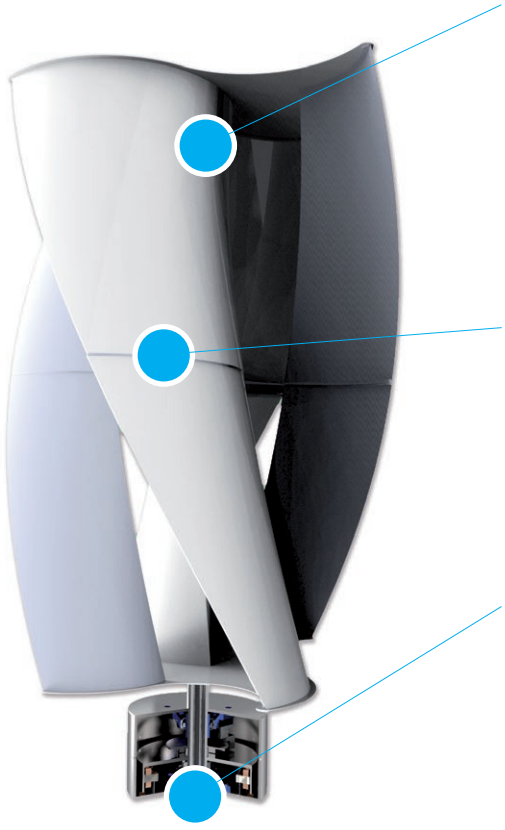
The wind turbine from LuvSide is 200 cm high with a diameter of 140 cm, and has a rated power of 1 kW at a wind speed of 14 m/s. These results of energy efficiency in a swept area of only 2.8 m2 are currently unmatched in the vertical SWT systems.



Rotor

With its characteristic double helix design, the LuvSide rotor has a patent-protected, innovative rotor geometry that is proving its worth in the test field, day after day. Although it has a classic Savonius form, it also has innovative and striking slats that use the principles of intelligent flow guidance to eliminate the detrimental eddies associated with many vertical-rotor models, thereby extracting more of the energy from the wind that flows past. According to complex 3D flow analyses from the fields of aviation and aerospace, this will result in a power increase of more than 25 percent in comparison to conventional geometries.

Light-weight construction

To offset the weight disadvantage of the vertical-axis format, LuvSide has prioritized ultra-lightweight construction from modern high-performance composites when selecting the materials for its rotor. The latest findings from process and materials technology have been implemented. The ultra-lightweight construction not only achieves advantages in terms of the start-up behavior of the rotor in weak winds, the material also guarantees a service life of more than 20 years despite the weather effects.

Electronics

Other SWT manufacturers often use standard components for their control electronics, despite the fact that these rarely work together seamlessly with their rotors. LuvSide, however, insists upon customized power electronics. A low-speed generator that was developed especially for the unit is integrated directly into the base, thereby permitting the direct transmission of power from the turbine rotor to the generator and reducing the number of components needed. The custom-developed control electronics that are customized to the unit ensure the optimal relationship between wind speed, rotation speed and power output.

LUVSIDE

BRIEF PROFILE

„Our planet is facing now an energy policy decision that affects us all. Fossil energy resources will run out in the next 40 years, according to UN statistics and the impact of the exploitation of the last 200 years, issues such as CO2 emissions and climate change have impacted the consciousness of the people. The experts are now sure that a decentralized and clean energy supply from renewable sources such as wind and solar power is the future.

In LuvSide we pursue the vision of small wind energy systems for decentralized power in regions with strong winds to become soon the standard. With our technology we will give the people a technical device able to supply his home or commercial facility itself with natural renewable power and therefore to take the responsibility of making a better future for themselves and the generations to come. „

LuvSide GmbH, based in Grünwald (in the administrative district of Munich) develops, builds and sells **vertical small wind turbines** (SWTs) for the generation of electricity from wind energy.

The development concept is based on three pillars: innovative blade geometry, modern lightweight design and a specially customed power electronics. Currently preparing the launch of wind turbines with an **output of 1kW, 3kW and 6kW.**

LuvSide relies on the synergy effects and the know-how of ERKA TECHNIK in injection-production and further-sized enterprises in the area of product development. The consortium is financially supported by BMWI from Berlin under the ZIM funding program.

Rolf Hoffmann
Dipl. Ing Rolf Hoffmann, CEO

Possible applications

LuvSide is intended for customers who want to use wind power for energy self-sufficiency – without any noise or shadows.

The LuvSide small wind turbine can also be attached to an edge of a house and with its attractive design will be well integrated into the overall picture.

Overview

- High efficiency
- Lightweight assembly
- 360° wind admission
- Quiet operation
- No shadow flicker
- Low maintenance
- Low purchase costs
- 1 kW, 3 kW and 6 kW

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