

SWP-25

25 kW Wind Turbine

- ✓ **Low-noise**
- ✓ **Up to 80,000 kWh per year**
- ✓ **Designed as a "real" wind turbine**
- ✓ **Low operating costs**
- ✓ **Developed and manufactured in Denmark**
- ✓ **Proven track record for 20 years**
- ✓ **Double generator system for high performance at low winds.**

SWP-25 is an elegant household wind turbine, manufactured with focus on quality and design.

SWP-25 is type approved according to the IEC 61400-2 standard, and meets all statutory requirements for household wind turbines.

SWP-25 is supplied on a conical tube tower, known from traditional big wind turbines.

SWP-25 is supplied with integrated tilt in the tube tower, which makes it possible to lay down the turbine for annual inspection, and enables avoidance of a service gondola on the side of the nacelle. The tilt tower is further advantageous during mounting, as you avoid costs for a mobile crane.

Operating data

Rated output: 25/6.5kW
Performance: Up to 80,000kWh/year
Hub height: 18m
Total height: 25m
Power regulation: Stall
Active wind area: 3-25m/s
Operating temperature: -20 C° to +50 C°

Rotor

Type: Stall regulated
Rotor diameter: 14m
Swept area: 154m²
Material: Fibreglass
RPM: 38/50

Generator

Manufacturer: VEM Motors GmbH.
Type: GE1R 200LX 6 TMP HW/GE1R 132MX 6 HW
Current: 3*400 + N
Frequency: 50Hz

Gear


Type: Sala J100 20:1
(Proven record for more than 30 years)

Safety system

Brakes: Electromagnetic fail safe brake, tip brake system.

Control

Orbital

 **Solid Wind Power**

Solid Wind Power A/S
Frejasvej 4
6950 Ringkøbing
Tel. : +45 97 32 33 22
web: solidwindpower.com
email: mail@solidwindpower.com

The story of SWP-25

Robert Sørensen Bosted designed the wind turbine Bosted 22 back in 1988. It had 22kW power and was designed as an upright wind turbine.

Robert knew all about wind technology and had detailed knowledge about things like the Kuriant turbine. His idea was to build a stable, reliable and durable wind turbine. He succeeded and the Bosted 22 wind turbine ran impeccably for 19 years.

We have maintained identical components and principles from back then. However, we decided to upgrade SWP with another generator, so it has a 25kW and 6.5kW generator. That makes us able to produce electricity at very low wind speeds. The turbine rotates with 38 RPM at low wind. By means of belt gearing, the small generator is able to rotate optimally, close to a max. of approx. 6.5kW.

In order to maximise the annual generation of power from our household wind turbine, we have developed a new 14m rotor, specifically dedicated to this wind turbine (SWP 25-14). Thus, we focused on developing a modern and high performance blade, especially for low wind speeds (4-8m/s).

We call the blade RMV 7000; it is manufactured in our own factory and meets all our requirements without compromising on noise and durability. We have used state-of-the-art design technologies and tools to make this happen.

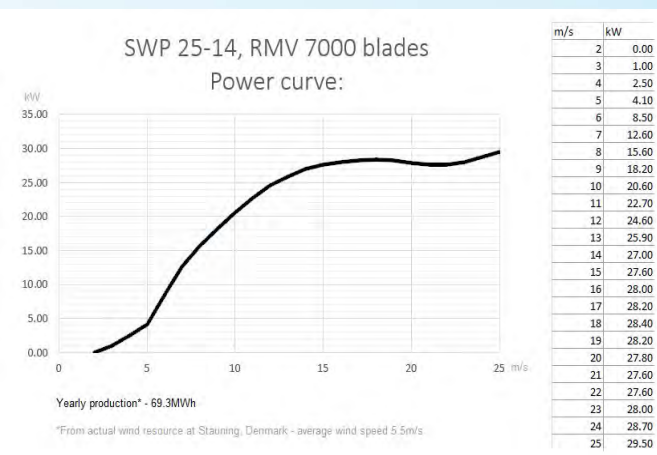
Today, RMV A/S is in charge of the design and construction of SWP-25, with more than 20 years of experience from the wind power industry. We call this wind turbine Solid Wind Power, since it is a solid turbine for many years of solid operation.



SWP 25-14 in Ringkøbing area, Denmark.

We set great value upon design and aesthetics in the design of the wind turbine. Please remember that this household wind turbine is going to be your closest neighbour for the next 20 years.

Noise is one of the biggest issues in terms of wind turbines. We have noise-reduced the entire nacelle. The nacelle is placed on a rubber mounting, similar to car engines. This prevents noise from shifting to the tower and eliminates low-frequency noise. The blades only rotate with up to 38RPM at low wind speeds of up to 5m/s. This low rotational speed results in minimum blade noise. The wind turbine will further be more tranquil to look at, since the blade rotation is reduced. As the wind speed increases, the turbine rotates with 50RPM and switches to the big generator. The noise from the turbine will not be audible, since the wind itself is noisy.



SWP 25-14 concrete foundation building process. Ringkøbing area, Denmark.