



Marlene

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Elegant Energy GmbH & Co. KG is revolutionising the way we think about renewable energy and how to implement it. The vertical axis wind turbine Marlene is a prime example of this. Marlene was developed as a plug & play solution. This is a unique solution for small wind turbines.

Cut in Speed	3 m/s (10,4 km/h, 2 Beaufort, Light Breeze)
Cut out Speed	25m/s (90 km/h, 10 Beaufort, Storm)
Survival Wind Speed	50 m/s (180 km/h, 12 Beaufort, Hurricane)
Rotor Height	6,5 m
Rotor Diameter	3,75 m
Swept Area	24,18 m ²
Max RPM	155
Number of Wings	3
Total Height	9,25 m to 20 m
Annual Energy Yield	up to 20.000 kWh

Aerodynamic Rotor

Marlene's Aerodynamic Rotor was developed primarily focussed on its performance. It is made from an aluminium alloy, to achieve low and evenly distributed weight. It works independent of wind direction, and it starts to produce energy at low wind speeds. Due to its shape the rotor has virtually no impact on animals. The elegant spinning movement of the aerodynamic rotor is especially attractive, which is why we named the wind turbine "Marlene".

One stop for everything

Elegant Energy offers an extensive analysis of the desired location to make sure that the average wind speeds and the terrain are optimal for using a small wind turbine. The actual energy yield is greatly influenced by the location of the wind turbine. When a location is indeed suitable for a Marlene Elegant Energy can supply, assemble and service the wind turbine.

Renewable energy for all

Due to her humble size Marlene is the right choice for many different clients. Harbours, Infrastructural service areas and commercial estates are highly suitable for this vertical axis wind turbine. Marlene can also be an attractive energy solution for small to medium sized companies, such as farmers, hotels and leisure parks. Even small communities and private home owners could find this elegant solution beneficial. Marlene can function both connected to the grid and off grid, and soon a range of energy storage systems will also be offered.

Generator, Mast and Electronics

Marlene's Generator was developed specifically for this application, to ensure optimal performance at different wind speeds.

As Marlene uses a straight tube mast she can be built in a variety of heights – between 9,25 meters tot 20 meters - , which is why Elegant Energy can adapt her to suit the surroundings.

All electronics are placed in the mast base, which enables quick and easy access. The electronics used in Marlene are industry standard components, and enable proactive control of the generator and aerodynamic rotor.

Plug & play connectors ensure easy and failsafe installation and servicing.

Quality

To ensure the highest quality Marlene was developed and manufactured in Mecklenburg-Vorpommern, Germany. All components are built and tested by reliable and experienced partners. The wind turbine will be certified by TÜV Nord.

Identifier for the Region

Elegant Energy is proud of her northern German origins and wants to be an identifier for the region. Thanks to the support from Wirtschaftsministerium Mecklenburg-Vorpommern, TBI and Mittelständische Beteiligungsgesellschaft MV Marlene was developed and will be produced. Elegant Energy will continue to be part of this region and combine Mecklenburg-Vorpommern down-to-earthness with a hint of Dutch rebelliousness.

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