



Ecological technologies by Dr. Möhring®

EURO-WINDPOWER oHG

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EURO SuperSilent SuSi (1.6 - 4.0 KWp)

translucent, silent, vertical axis wind turbine,
especially configured to user's needs



EURO-SuperSilent SuSi 4M

4 windlayers
2 alternators
1 snowroof
1 mast - 12.6 ft
4 x guide wiring
1 battery 12V 120Ah
optional:
display module
(extra charge € 255.-)
anchoring
(separately on site)

EURO-SuperSilent SuSi 4M (0,4 - 1,6 kWp) - from € 7,890.- inkl. USt.
EURO-SuperSilent SuSi 6M (0,4 - 2,4 kWp) - from € 9,350.- inkl. USt.
EURO-SuperSilent SuSi 8M (0,4 - 3,2 kWp) - from € 10,750.- inkl. USt.
EURO-SuperSilent SuSi10M (0,4 - 4,0 kWp) - from € 12,190.- inkl. USt.
(pre assembled, shipped in two boxes fob ex Sonndorf 19% VAT included)

EURO SuperSilent SuSi VAWT — the most actual vertical axis wind turbine

represents the consequent development on the ancient principle of using wind power through vertical wind assemblies.
In general vertical axis wind turbines have a lot of advantages compared to horizontal wind turbines:

- suitable for wind from 15 to 55 mph — secure due to self-limiting at higher wind speeds (> 40 mph). No regulation of rotation necessary.
- independent from direction of wind (no continuous adjustments)
- auto starters (no energy consumption for „up-bringing“ necessary)
- low budget due to few elements in total

EURO SuperSilent SuSi — VAWT (1.6 — 4.0 KWp)

EURO SuperSilent SuSi - Vertical Axis Wind Turbine VAWT

offers additional advantages:

- modular design (3-fold extendability up to 4.0 KW peak)
- translucent construction (no harming to scenic areas)
- due to slow rotation generally usable for advertising too
- no costly construction needed due to „endo sceleton“
- almost loudlessly (less than 15dba) running at any speed
- wearless usage over years due to all weather resistant materials
- super low ecological footprint

The disadvantage of less wind power conversion (efficiency) in comparison to horizontal wind turbines is compensated by using a special, registered design of the wind wings within the wind layers of **EURO SuperSilent** (efficiency $\eta > 0.4$).



EURO SuperSilent SuSi 4M / SuSi 8M - VAWT

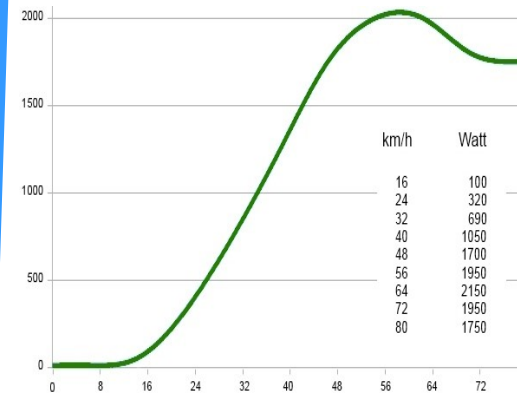
Pictures above of **EURO SuperSilent SuSi 4M / SuSi 8M - VAWT** show the basic assembly of four / eight wind modules with a total height of 12,6 / 20.3ft.

You will clearly notice that the wind wings almost can not be seen. On special request the bottom disks of each layer can be made of translucent material too thus making the total assembly almost invisible.

The picture in the middle shows the assembly running at low energy of about wind speed of 18mph. (Power indicators under the bottom of the lowest layer are on.)

Maximum power output will be reached at wind speed of higher than **38 mph**.

EURO SuperSilent SuSi — VAWT (1.6 — 4.0 KWp)



EURO SuperSilent SuSi - VAWT

Approx. electric power vs wind speed:

Usable power from wind power assemblies is highly depending on the amount of wind captured per time i.e. continuous wind speed.
At low wind speed the output will be variable.
(see principal diagram to the left)

EURO SuperSilent SuSi- VAWT Hints on general planning of VAWTs

To obtain a well working **vertical axis wind turbine VAWT** thorough planning is absolutely mandatory.

Following points have to be taken into consideration:

- in principal VAWTs should not be used as singular power supply. Using such devices as the one and only monovalent power plant may be possible with a bunch of backup batteries (more than 200 KWh). Batteries (accumulators) to hold such an extreme load are highly expensive and must be resistant to high changes in temperature.
- grid tied layout or as standalone or as complementary energy input device to already existing or planned photovoltaic installation has to be decided on
- identify the wind situation on site at least for a period of eight to twelve weeks. Necessary wind measuring equipment can be bought or requested on loan from EURO.
- calculations of the needed power output. (electric, caloric and / or mechanic power).
- locate the most suitable places on site for placing VAWTs. Wind pressure, wind periods, environmental requirements have to be weighed thoroughly
- the type of soil to bring up the VAWT on must be suitable